



THE FIRST IFMAR OFF ROAD
WORLD CHAMPIONSHIPS

Jamin Jay
1985 IFMAR Off Road 4WD World's 2nd Place

'85 IFMAR WORLDS

RC10 4WD

JAY HALSEY FOUR-WHEEL CHAIN DRIVE

The 1985 IFMAR
1:10 Off Road Legend
Classic Chain Drive System



TEAM ASSOCIATED

1:10 Scale 4WD Electric Off Road Competition Buggy Kit Manual

#6056 RC10 4WD Chain Drive Kit



CHAMPIONS by DESIGN

TeamAssociated.com

TEAM ASSOCIATED

:: Introduction

Thank you for purchasing this Team Associated product. This assembly manual contains instructions and tips for building and maintaining your new Kit. Please take a moment to read through this manual to help familiarize yourself with these steps.

We are continually changing and improving our designs; therefore, actual parts may appear slightly different than in the illustrations. New parts will be noted on supplementary sheets located in the appropriate parts bags.

Check each bag for these sheets before you start to build.

:: KIT Features

- New Stainless steel heavy duty chain
- New hardened chain sprocket gears
- New carbon fiber chain separator system
- New front CVA axles and tapered front dog bones
- New wide front hex wheel and tire
- Short front arm geometry
- Jay Halsey style clear wing
- Worlds style steering bellcranks
- Adjustable Chain tension system
- Clear driver included
- Heavy duty turnbuckles and ball studs
- Classic gold chassis, nose plate and motor plate
- New front and rear natural shock towers
- Hardened driveshafts and dogbones
- RC10 Classic Protech body
- Long Travel, fluid filled anodized aluminum coil over shocks
- Sealed 3 gear Stealth A.T.C. transmissions
- High torque ball differentials
- Exceptional ground clearance with low center of gravity
- RC10 Classic wheels and tires
- Full metal ball bearings
- Fits 6 cell and 2S Lipo battery packs

:: Additional

Your new RC10 4WD Kit comes as a kit. There are some items you will need to complete your kit (refer to website for suggestions):

- R/C two channel surface frequency radio system
- Electronic Speed Control (ESC)
- Steering Servo
- 2S, 7.4V Lipo stick battery or 7.2V NiMH battery
- 2mm Hex Driver (AE #1501)
- Thread Lock (AE #1596)
- Pinion gear, size to be determined by type and wind of motor you use
- R/C Electric Motor
- Peak detection battery charger
- 5.5mm Hex Driver (AE #1507)
- Polycarbonate specific paint

Tools included:

- Allen wrenches
(.035", .050", 1/16", 3/32")
- Shock building tool

:: Other Helpful Items

- Silicone Shock Fluid (Refer to website for complete listings)
- Tire Adhesive (AE #1697)
- Shock Pliers (AE #1681)
- Wire Cutters / Hobby Knife
- Body Scissors (AE #1737)
- Green Slime shock lube (AE #1105)
- Needle Nose Pliers
- Reamer / Hole Punch (AE #1499)
- Calipers or a Precision Ruler
- Soldering Iron

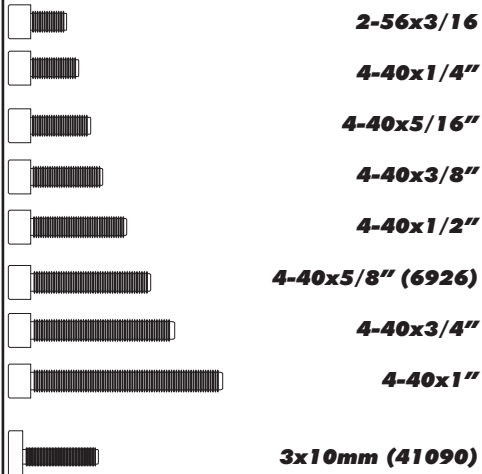
Associated Electrics, Inc.
21062 Bake Parkway
Lake Forest, CA 92630



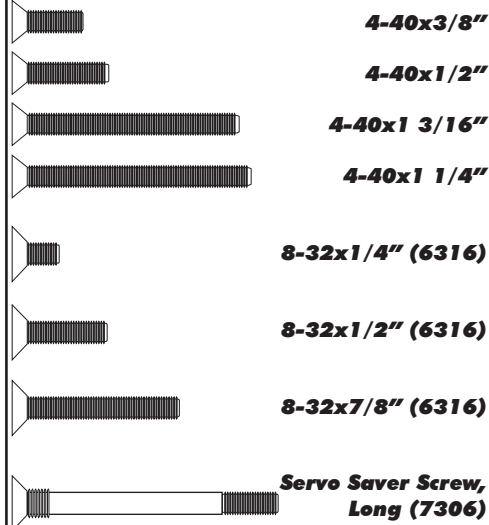
Customer Service
Tel: 949.544.7500
Fax: 949.544.7501

:: Hardware - 1:1 Scale View

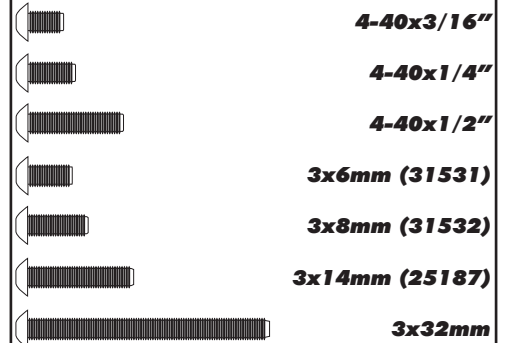
Cap Head (shcs)



Flat Head (fhcs)



Button Head (bhcs)



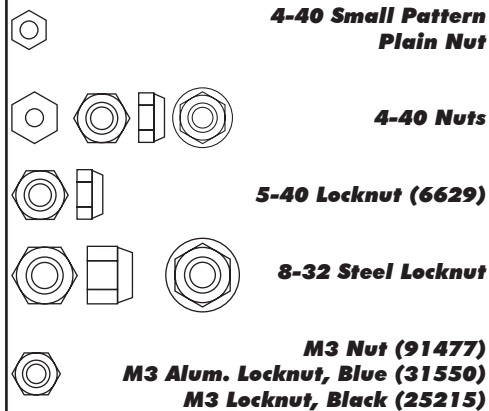
Clips



Shims and Washers



Nuts (lock/plain)



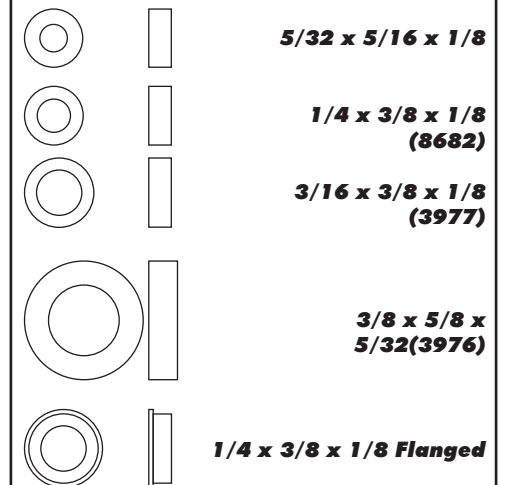
Set Screws



Diff Balls



Bearings



Notes:

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:: Notes

This symbols indicates a special note or instruction in the manual.



There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size.

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Lake Forest, CA 92630

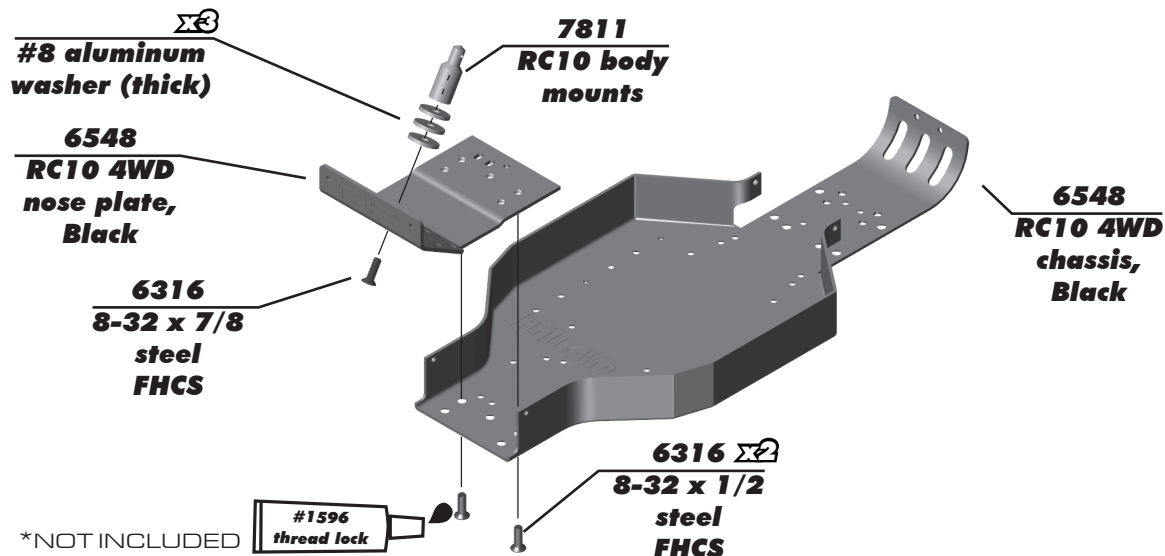


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Tel: 949.544.7500
Fax: 949.544.7501

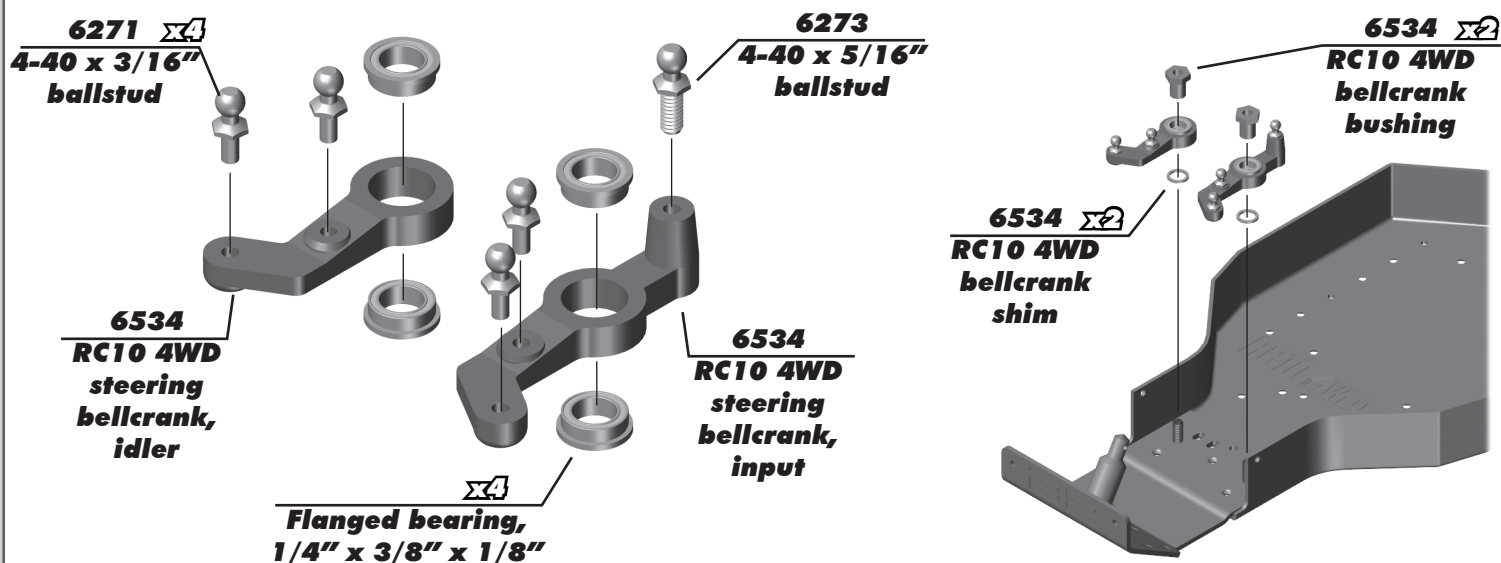
:: Nose Plate / Steering Build - Bag A - Step 1



Washers are used to adjust to your preferred body height.



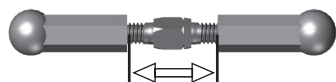
:: Nose Plate / Steering Build - Bag A - Step 2



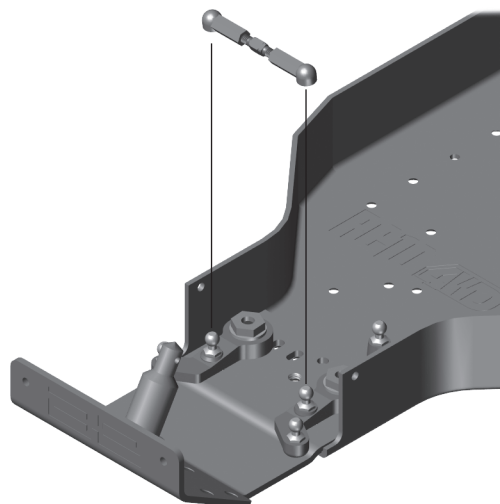
:: Nose Plate / Steering Build - Bag F - Step 3



Steering Rack Turnbuckle
0.48" (12mm)

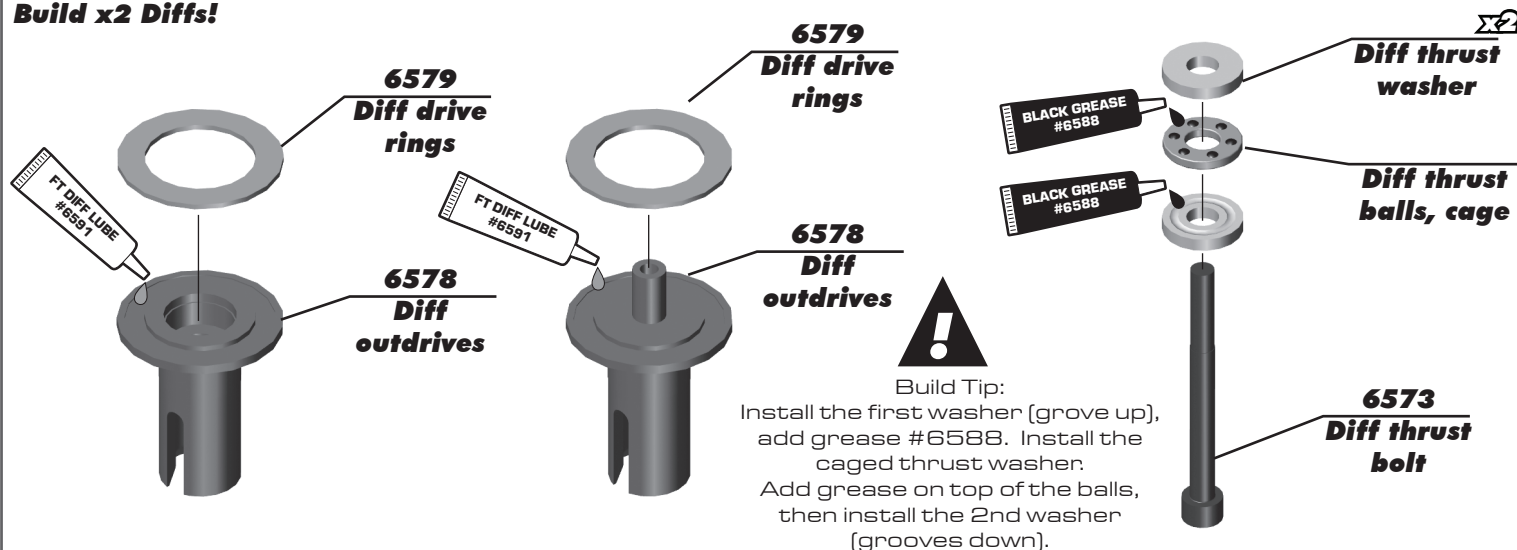


Orient the notch to the left throughout the car. It indicates which end has the left hand threads!

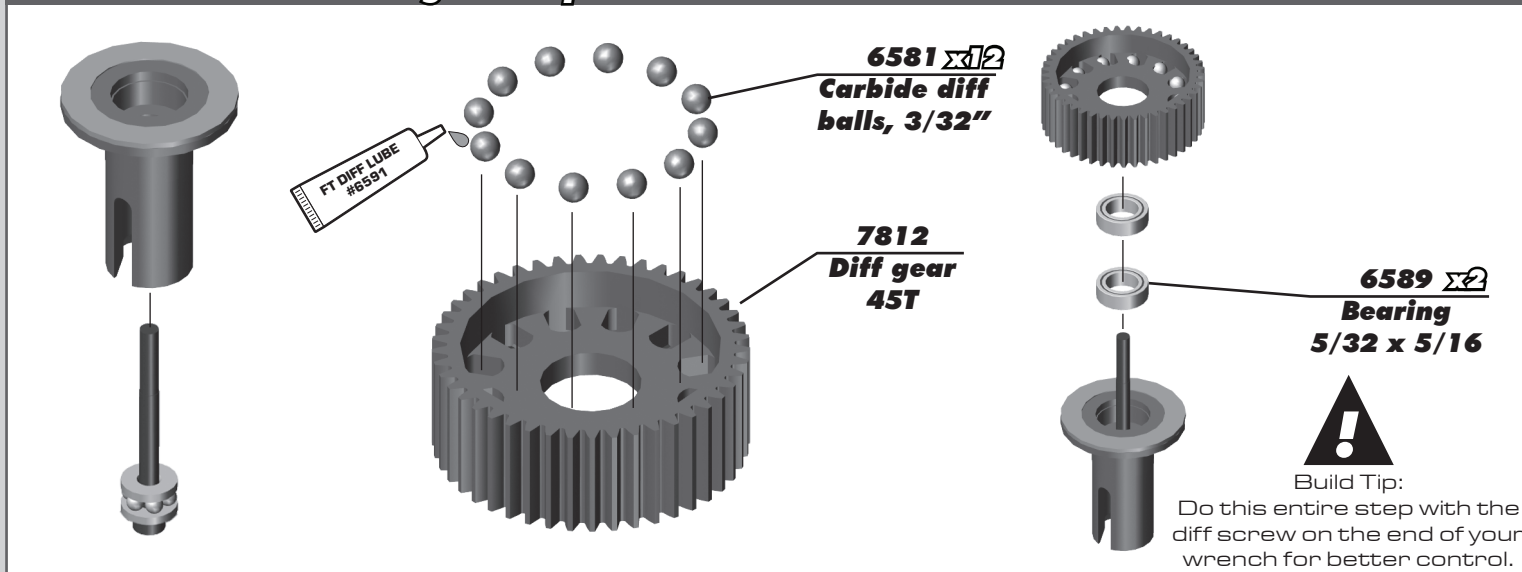


:: Differential Build - Bag B - Step 1

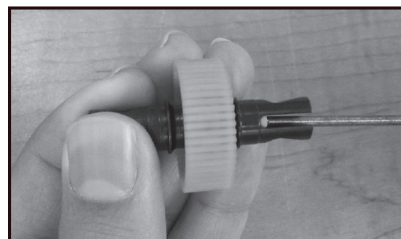
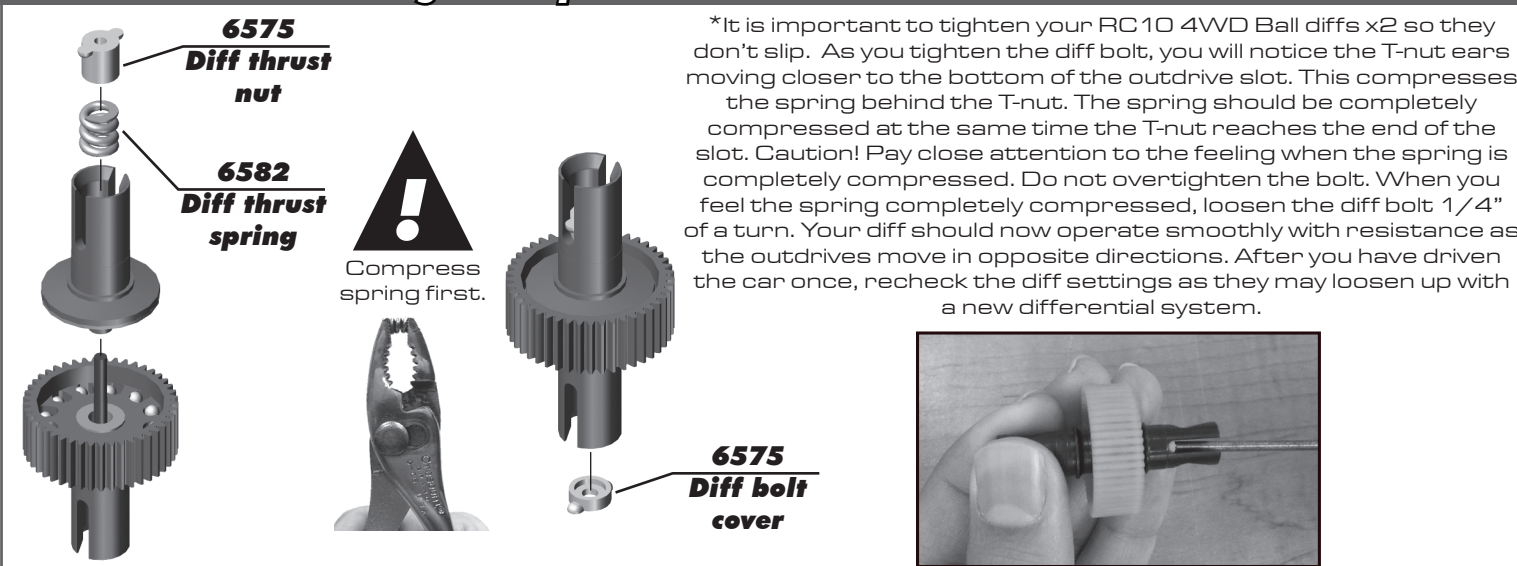
Build x2 Diffs!



:: Differential Build - Bag B - Step 2



:: Differential Build - Bag B - Step 3



:: Differential Build - Bag B - Step 4

Front diff settings and setup notes / tips:

When installing your Ball Differentials, make sure to install the Diff Bolt on the same side as the Top Shaft End.

- Front Diff: Diff Bolt should be on the Driver Side
- Rear Diff: Diff Bolt should be on the Passenger Side

Tighter Front Diff: Tighter front diff compared to the rear will give you more on power steering and off power stability.

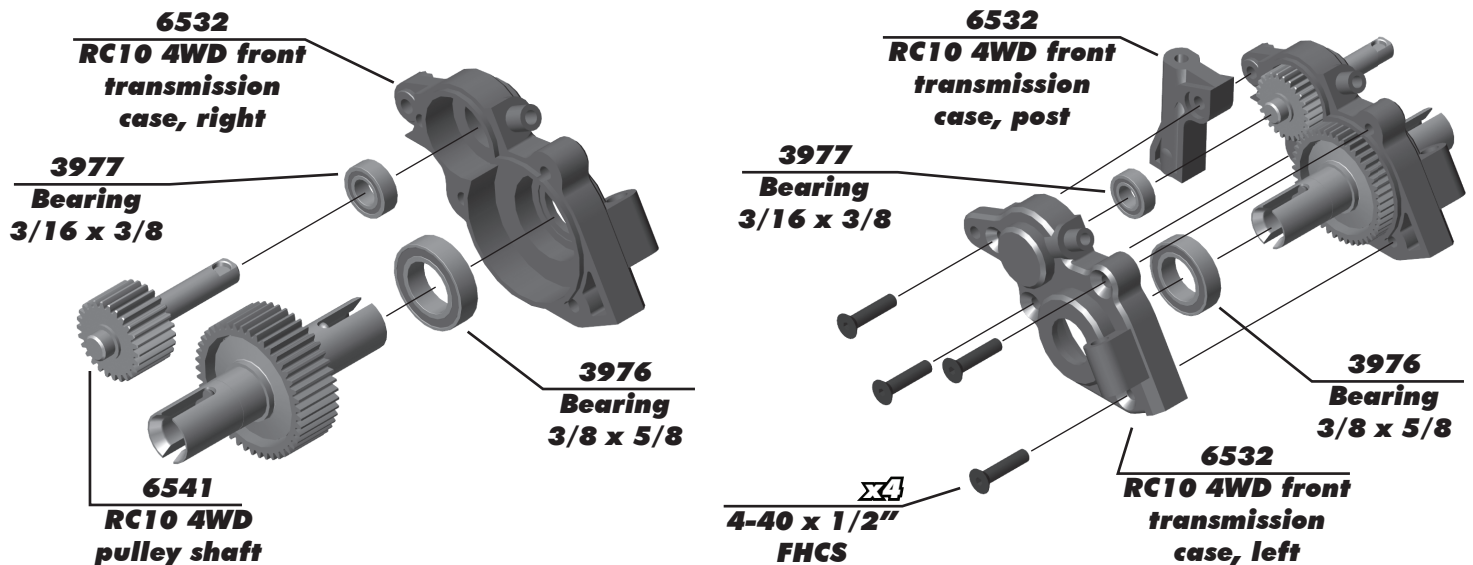
Looser Front Diff: Looser front diff compared to the rear will provide more off power steering and on power stability.

Rear diff settings and setup notes / tips:

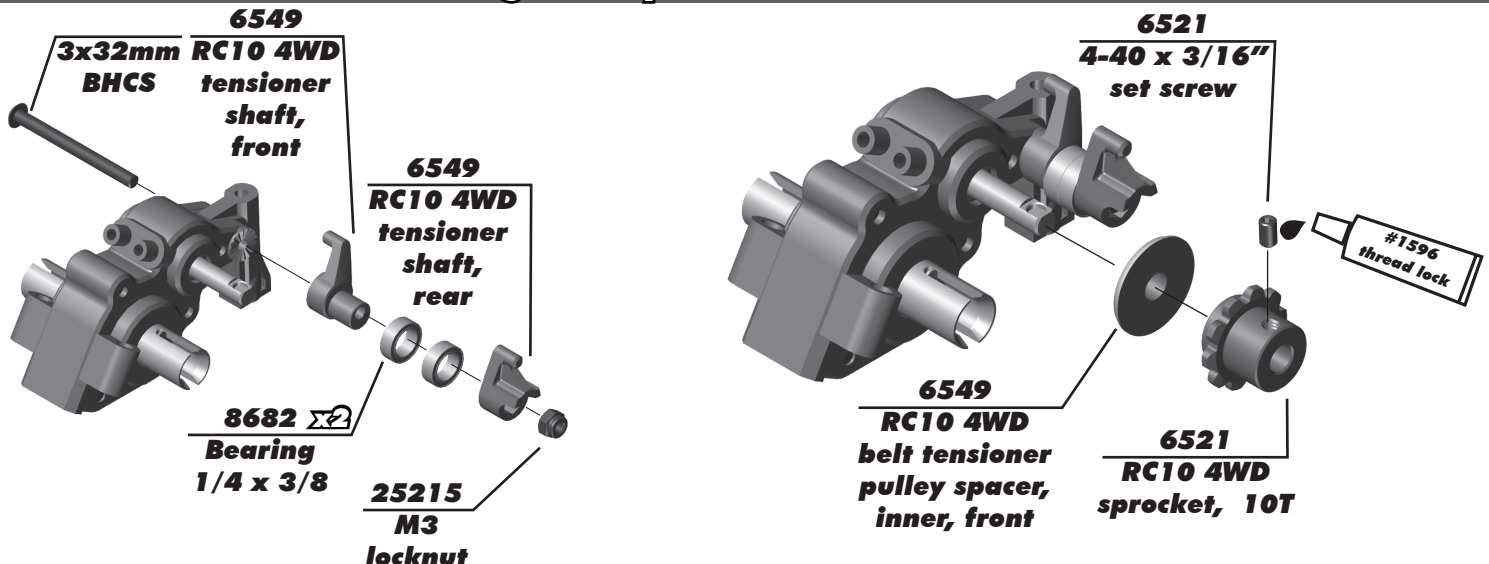
Tighter Rear Diff: Tighter rear diff compared to the front will provide more rear end stability.

Looser Rear Diff: Looser rear diff compared to the front will provide more off power corner speed and on power stability.

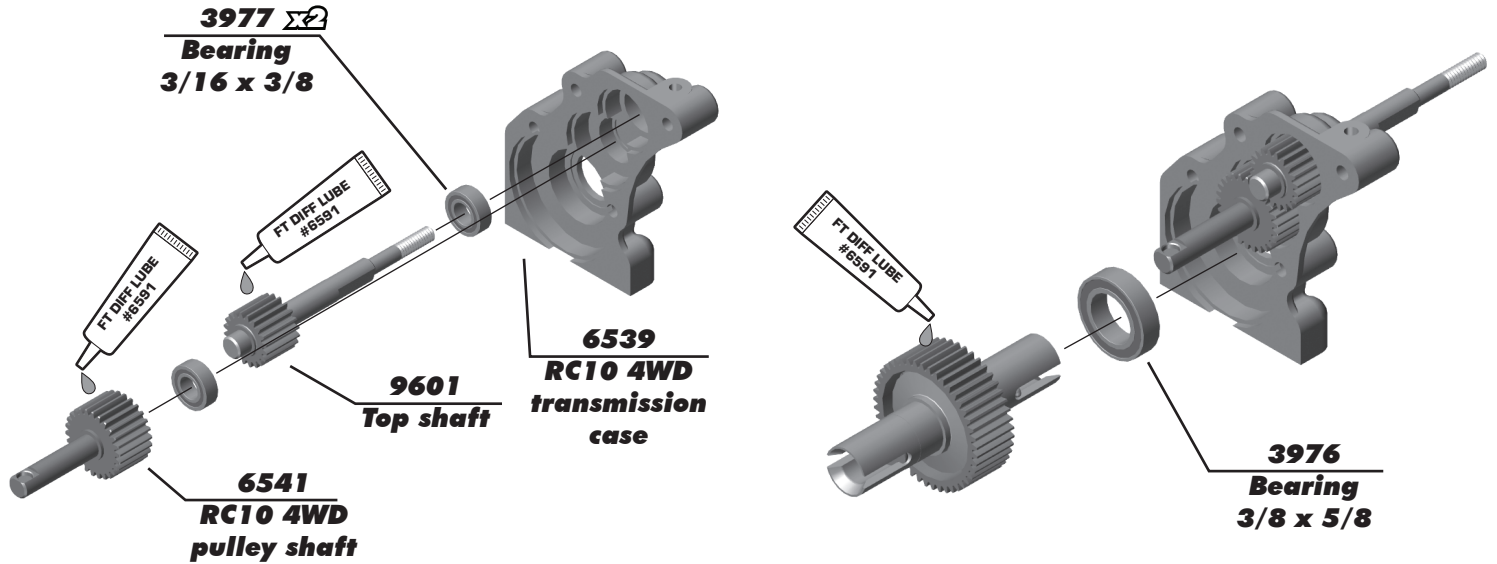
:: Front Transmission Build - Bag B - Step 1



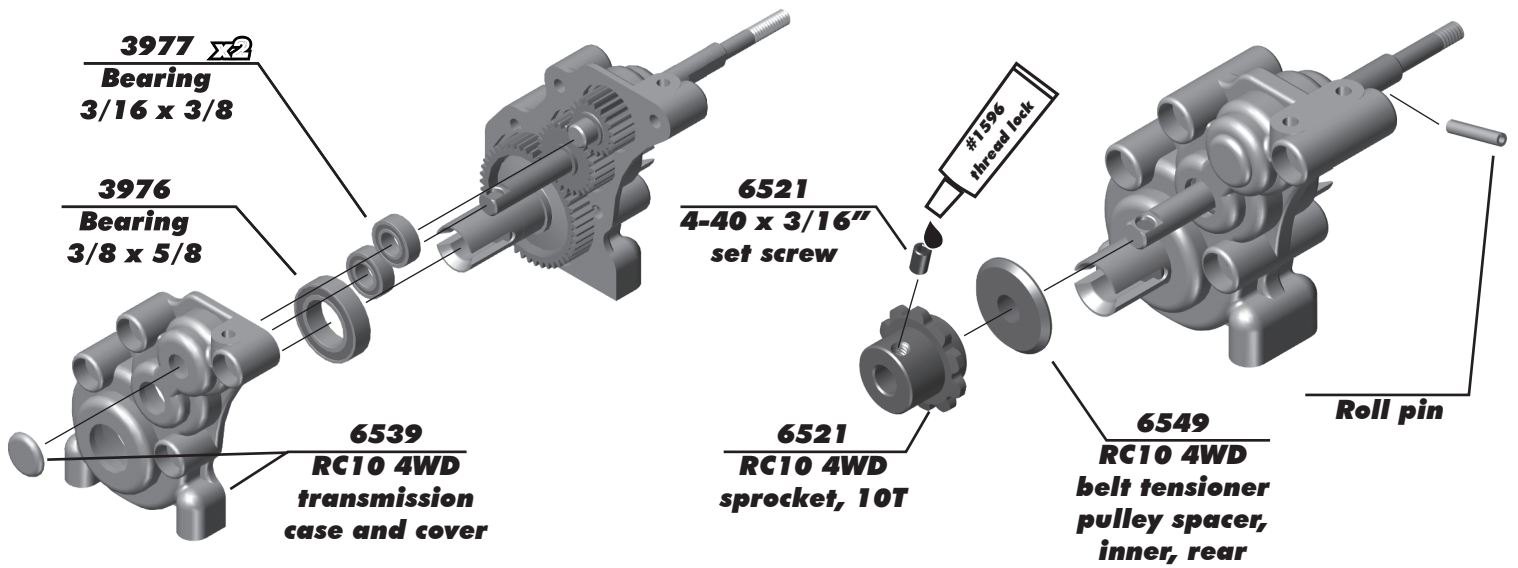
:: Front Transmission Build - Bag B - Step 2



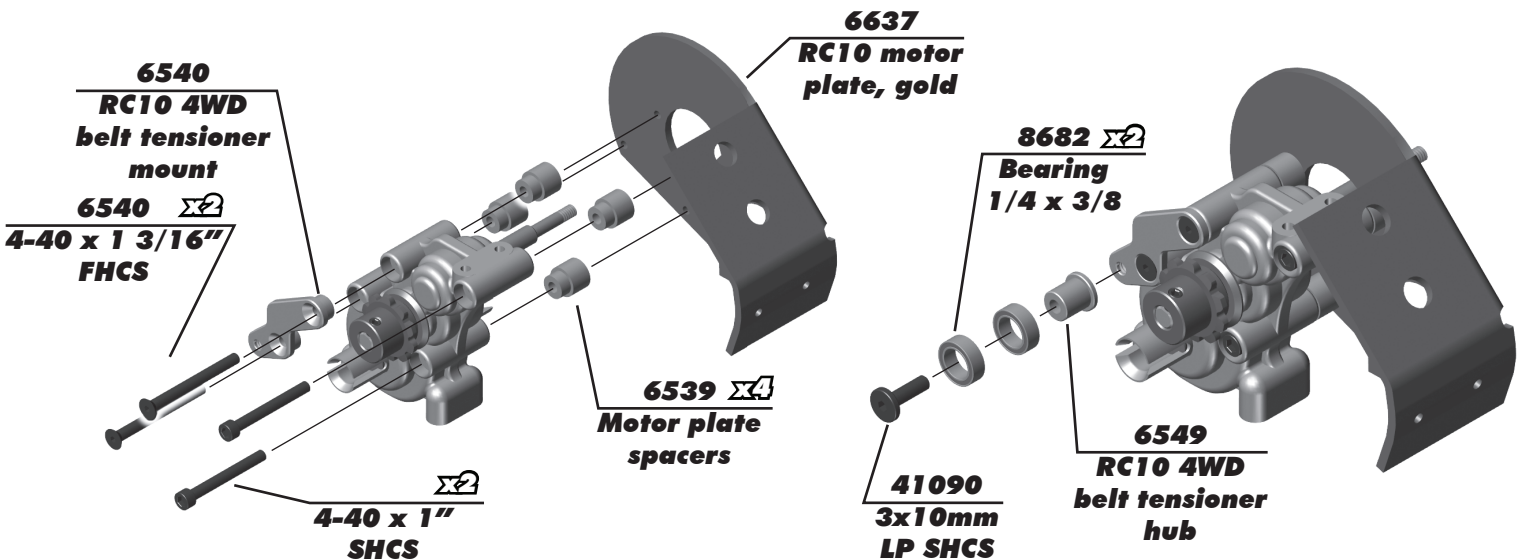
:: Rear Transmission Build - Bag B - Step 1



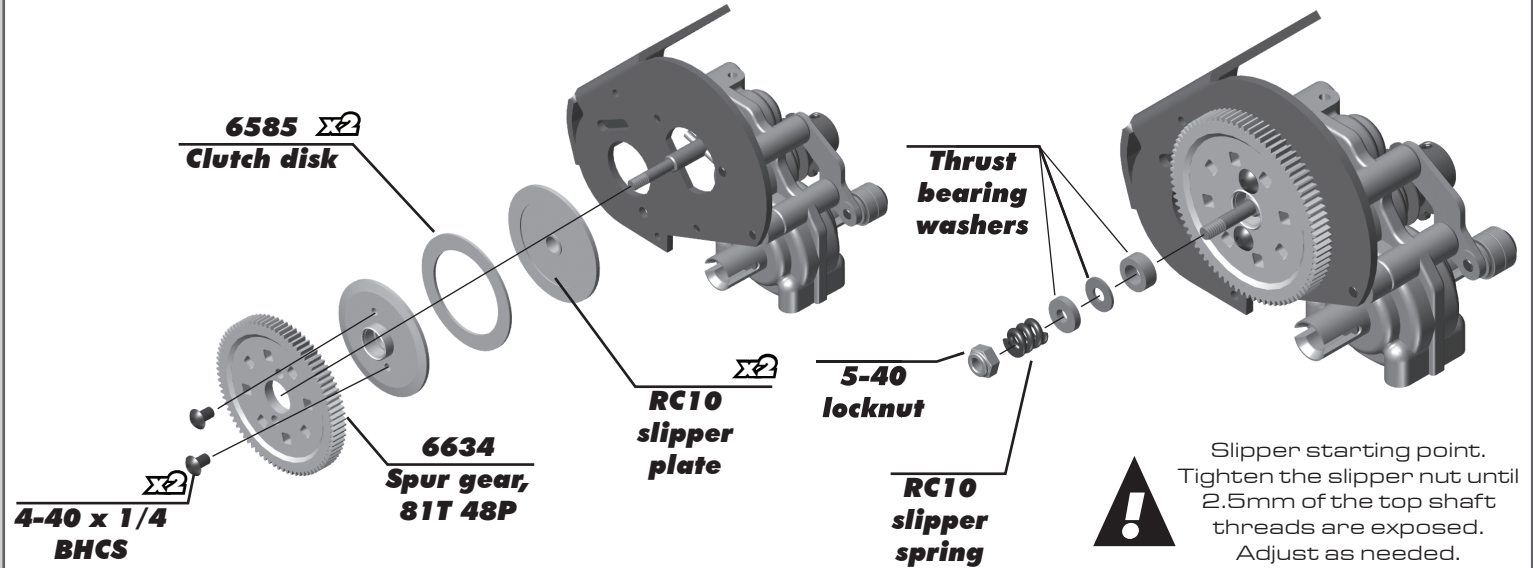
:: Rear Transmission Build - Bag B - Step 2



:: Rear Transmission Build - Bag B - Step 3



:: Rear Transmission Build - Bag B - Step 4



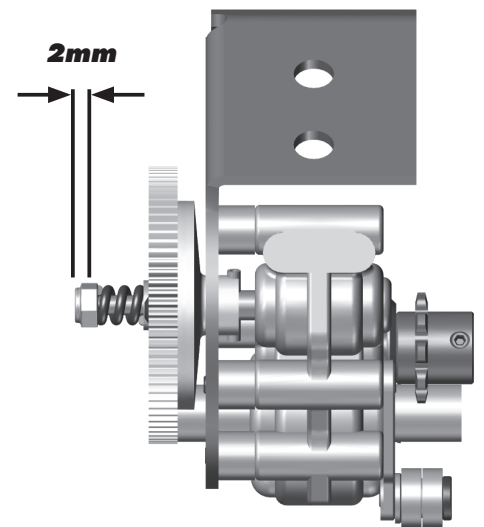
:: Rear Transmission Build - Bag B - Step 5

Slipper Clutch:
On high bite tracks:

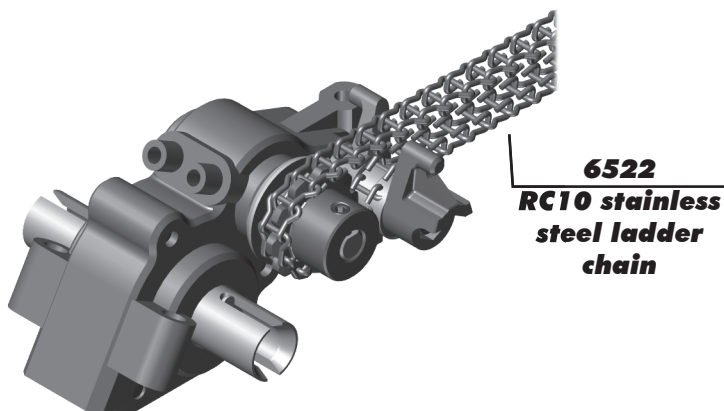
The slipper clutch setting is very important on higher bite tracks.

Without much wheel spin, The slipper clutch will need to be set properly to engage under heavy braking to prevent the belt from skipping. The belt is on the same rear top shaft as the slipper system. IF the slipper is set too tight, this can cause issues with belt management. Recommended slipper clutch setting on high bite tracks = 2mm threads showing.

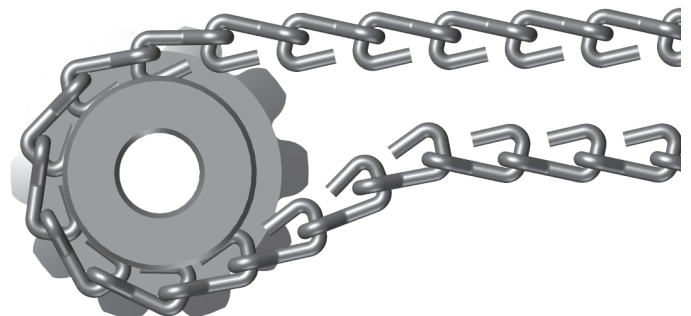
Caution: It is also recommended to set your esc brakes accordingly, too much brake can cause issues with the belt and slipper system.



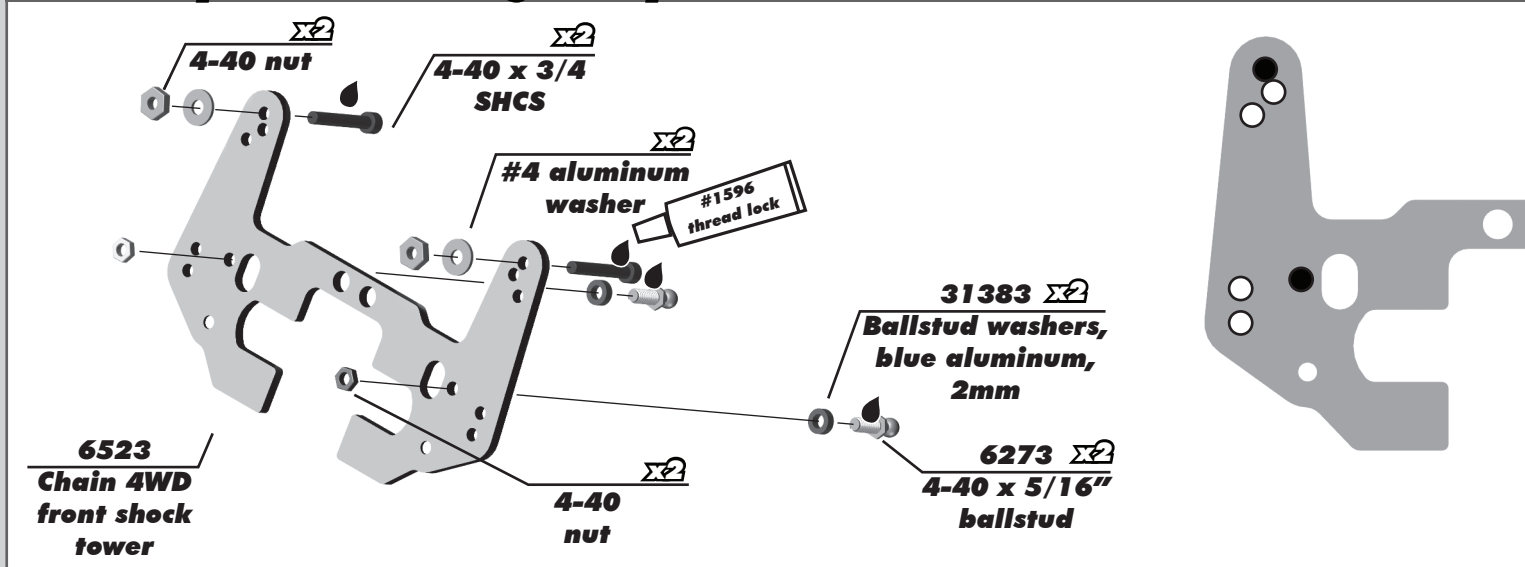
:: Rear Transmission Build - Bag B - Step 6



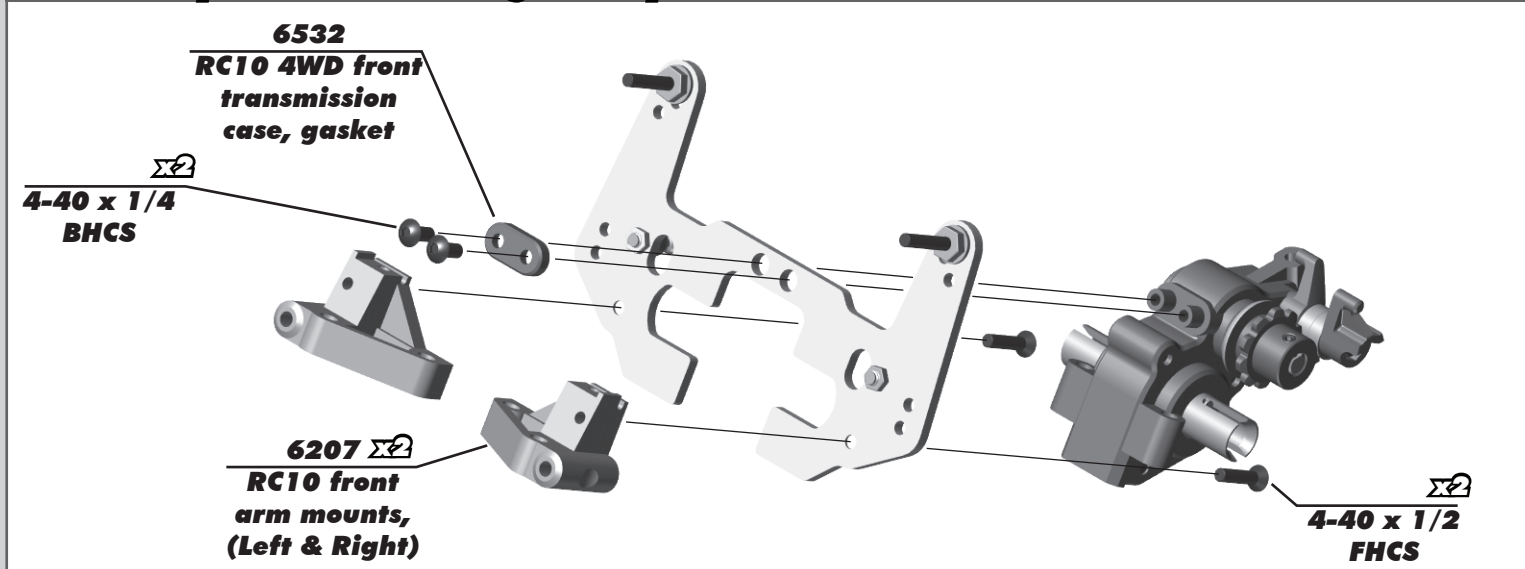
Note the chain and sprocket direction.



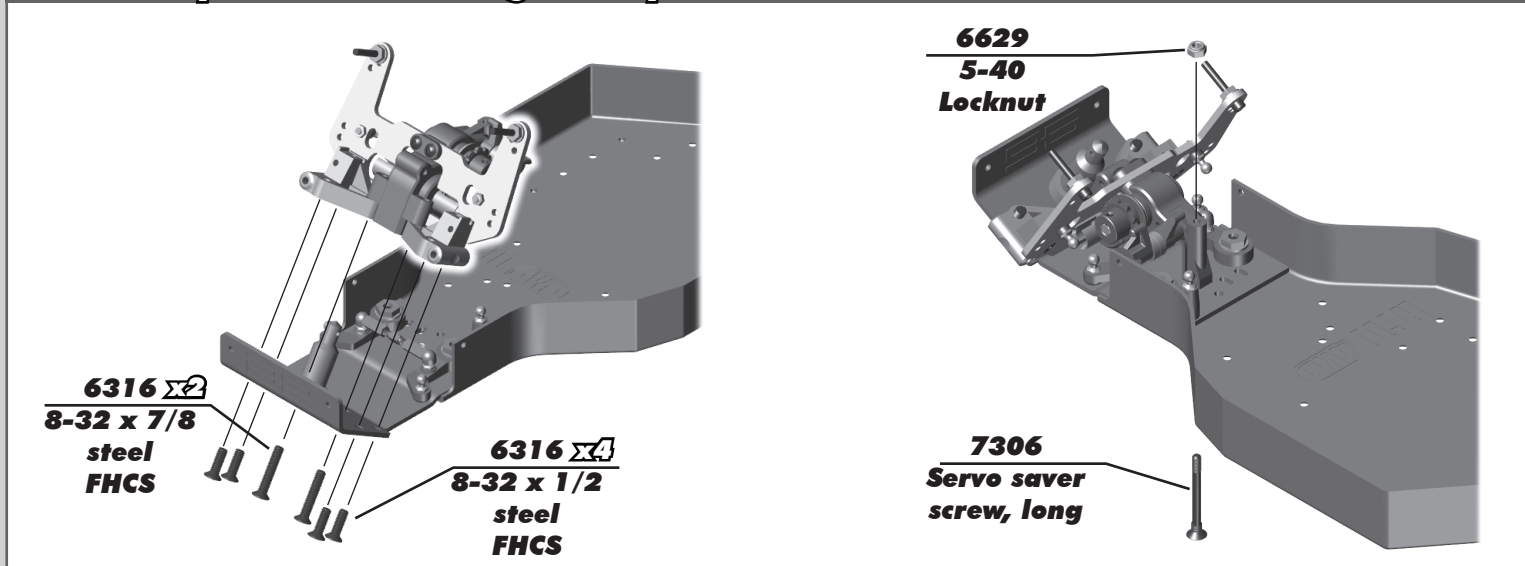
:: Front Suspension Build - Bag C - Step 1



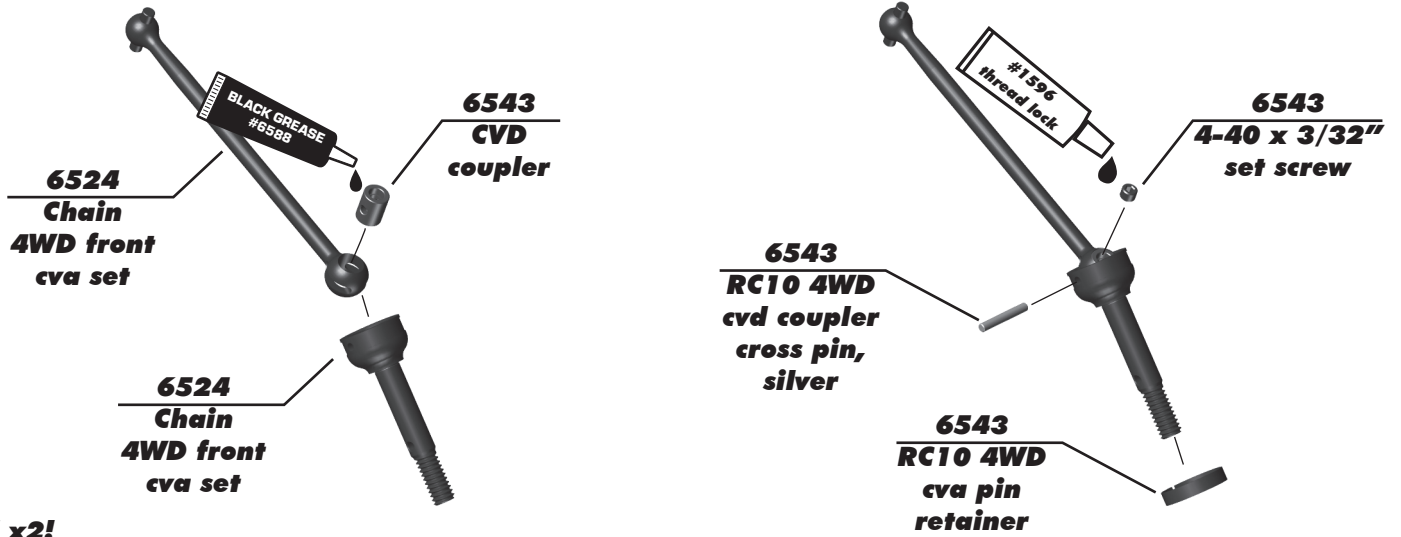
:: Front Suspension Build - Bag C - Step 2



:: Front Suspension Build - Bag C - Step 3

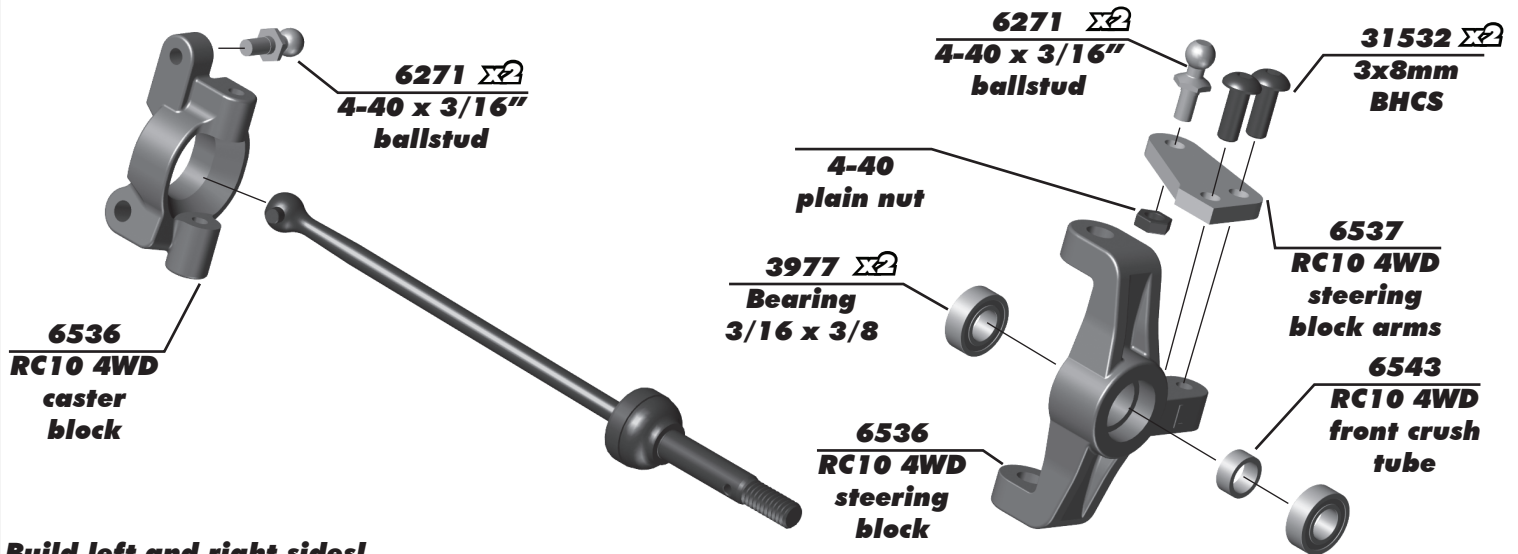


:: Front Suspension Build - Bag C - Step 4



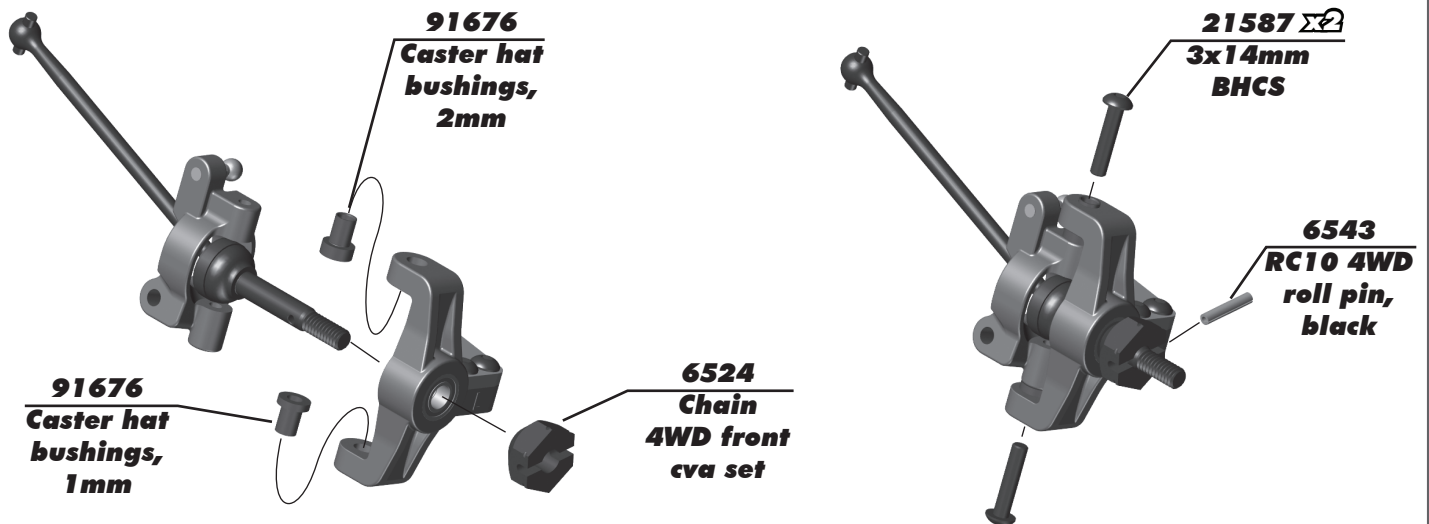
Build x2!

:: Front Suspension Build - Bag C - Step 5



Build left and right sides!

:: Front Suspension Build - Bag C - Step 6



Build left and right sides!

:: Front Suspension Build - Bag C - Step 7

6641
RC10 front
arms,
(Left & Right)

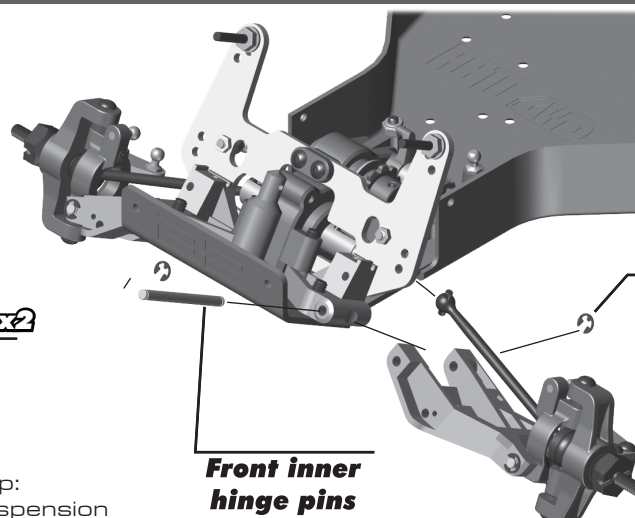
Front outer
hinge pins
1.25 x 1.1195

6299 X2
E-clip
(small)

Build left and right sides!



Racer Tip:
Trim edge of suspension
arm for added steering
block clearance.

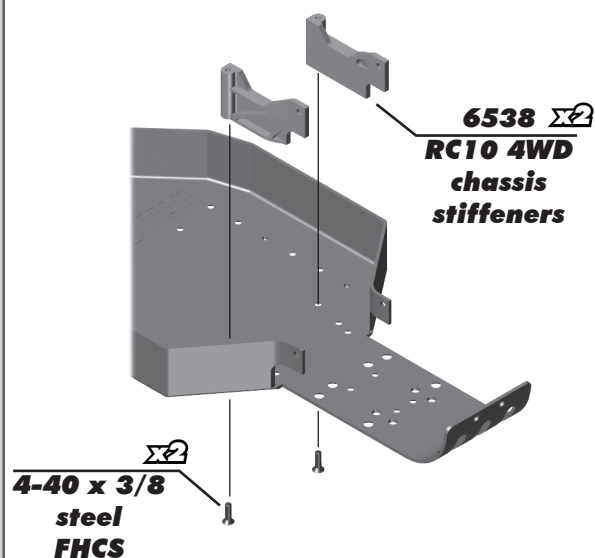


6299 X2
E-clip
(small)

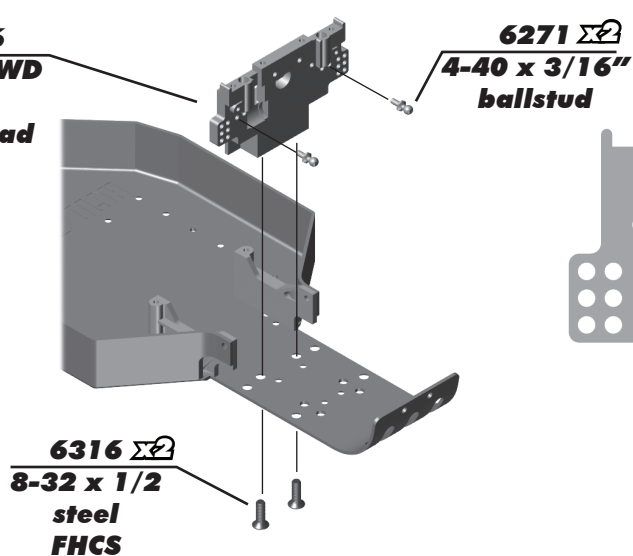
Front inner
hinge pins
1.25 x 1.522

Build left and right sides!

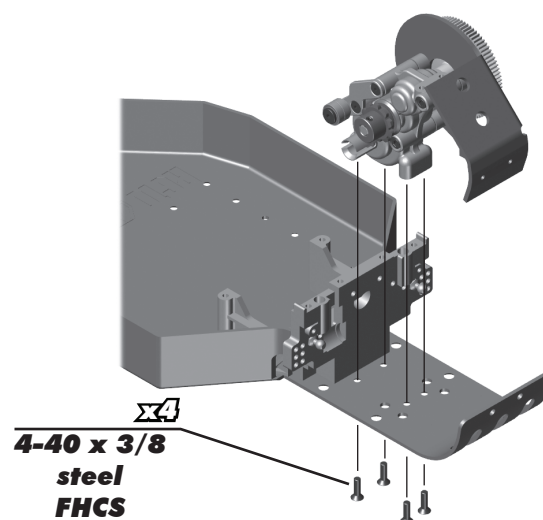
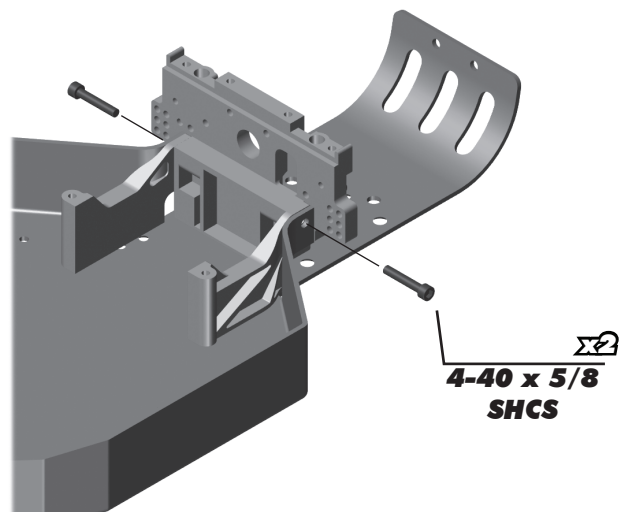
:: Rear Bulkhead Build - Bag D - Step 1



6546
RC10 4WD
rear
bulkhead



:: Rear Bulkhead Build - Bag D - Step 2

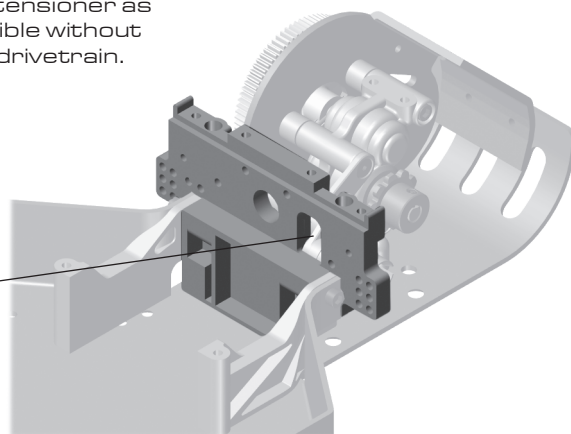
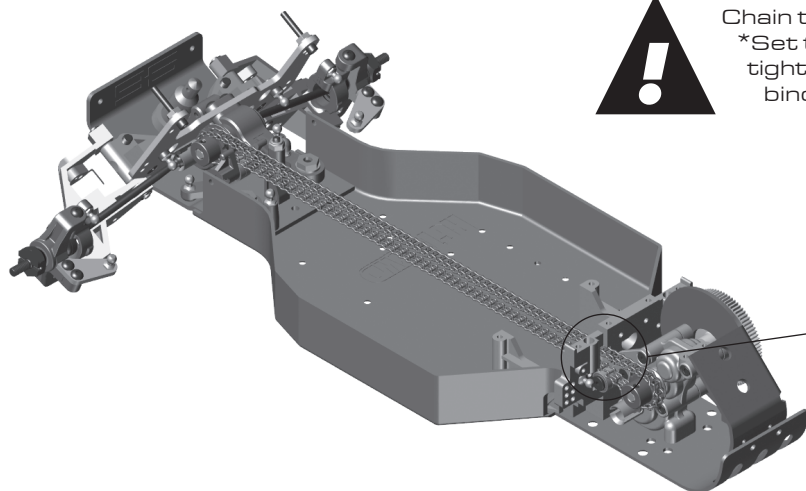


:: Rear Bulkhead Build - Bag D - Step 3



Chain tension notes / setup:

*Set the belt tensioner as tight as possible without binding the drivetrain.



:: Rear Bulkhead Build - Bag D - Step 4



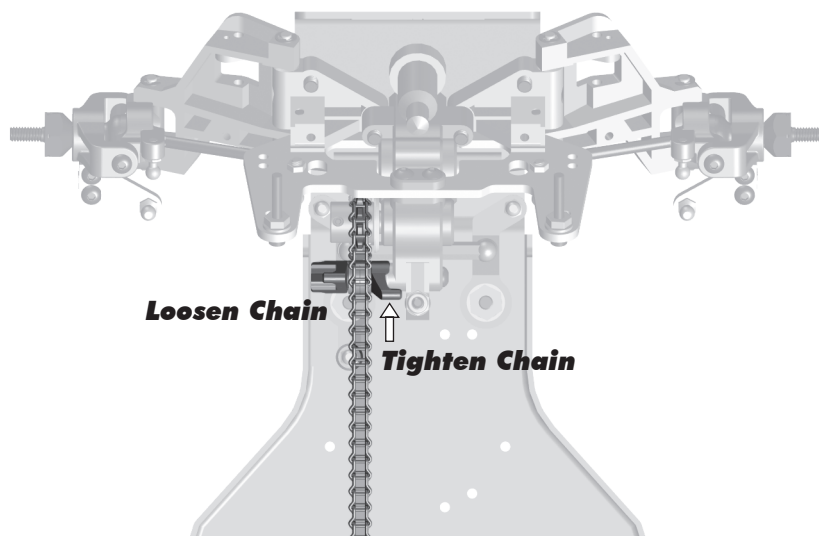
Chain Installation:

Check chain tension after the first few runs.
A new chain may stretch during break-in.

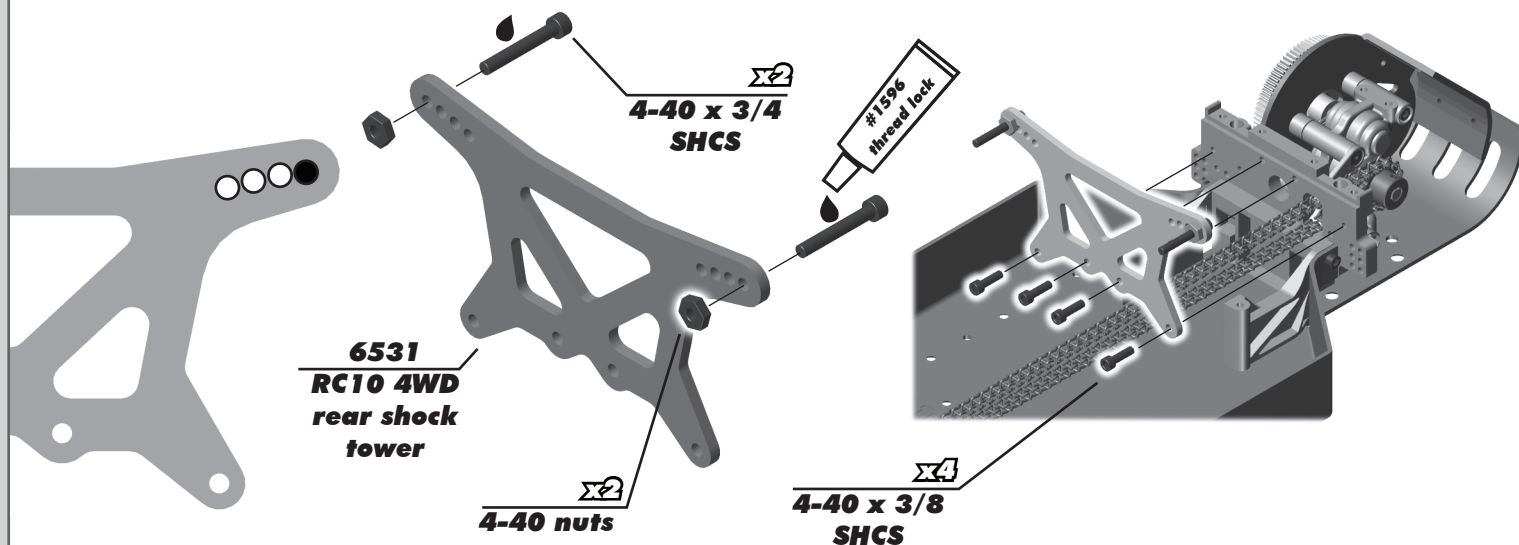
If excessive chain stretch occurs, remove one link from chain manually or replace the chain.

Do not overtighten the chain. Excessive tension may reduce drivetrain efficiency and accelerate wear.

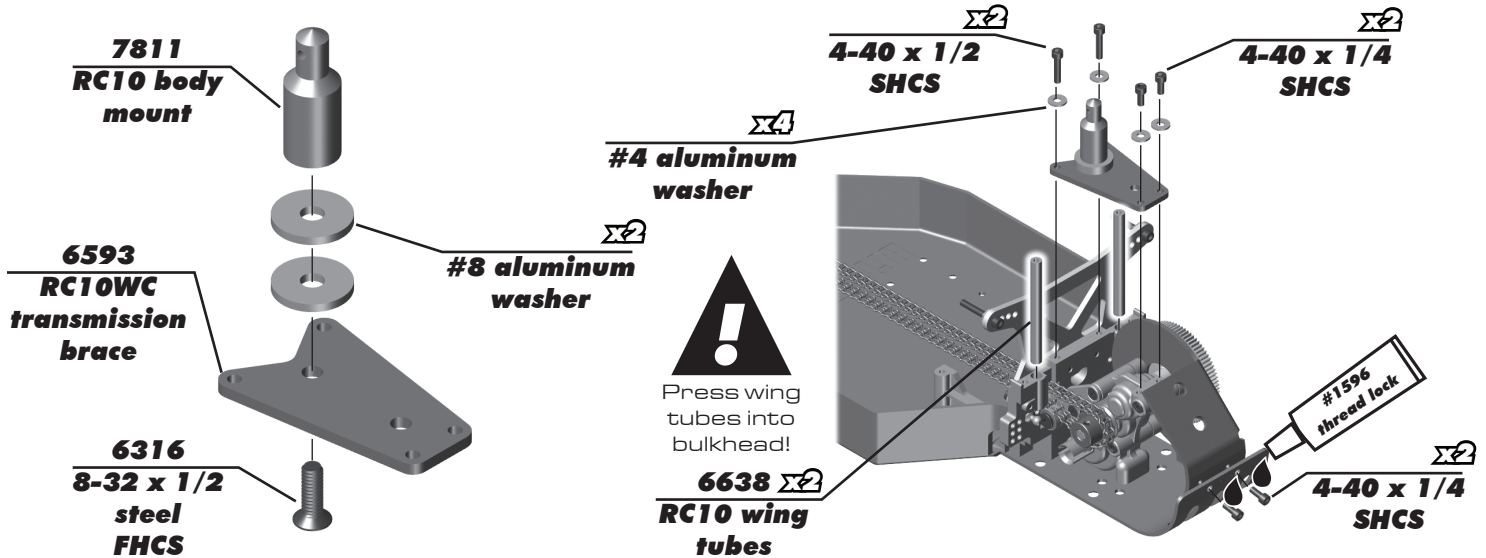
Keep the chain clean. Use only a light dry lubricant if required.



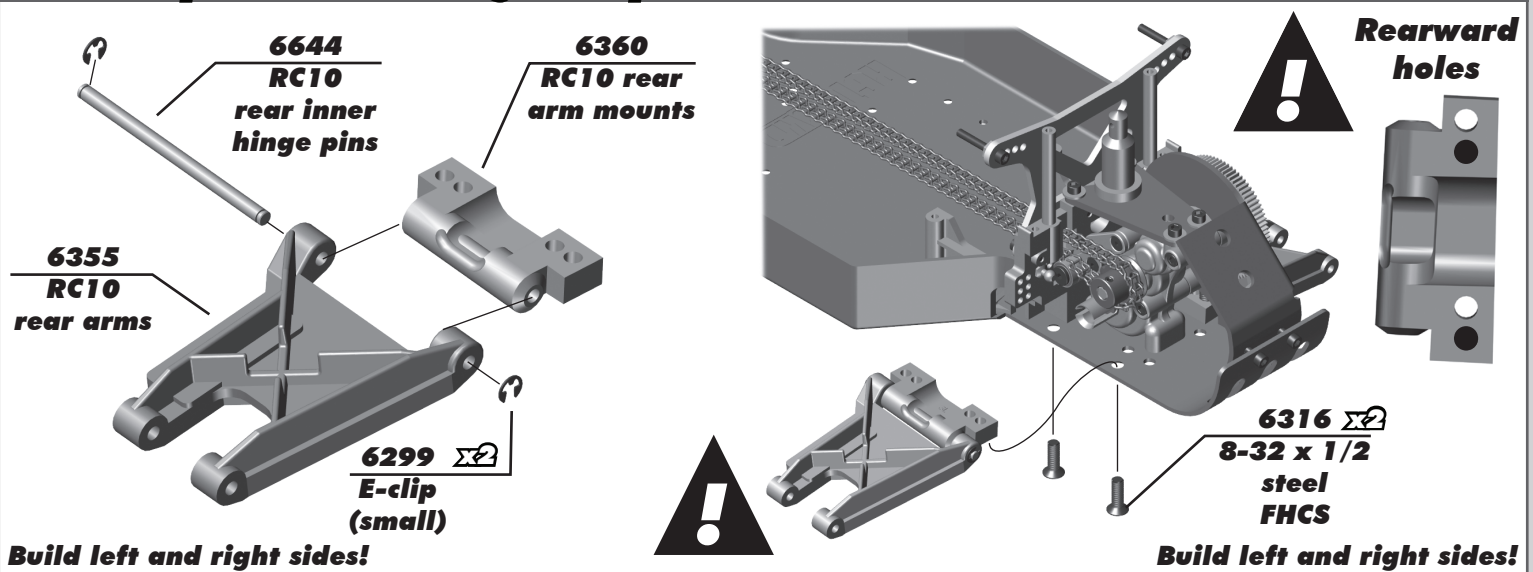
:: Rear Bulkhead Build - Bag D - Step 5



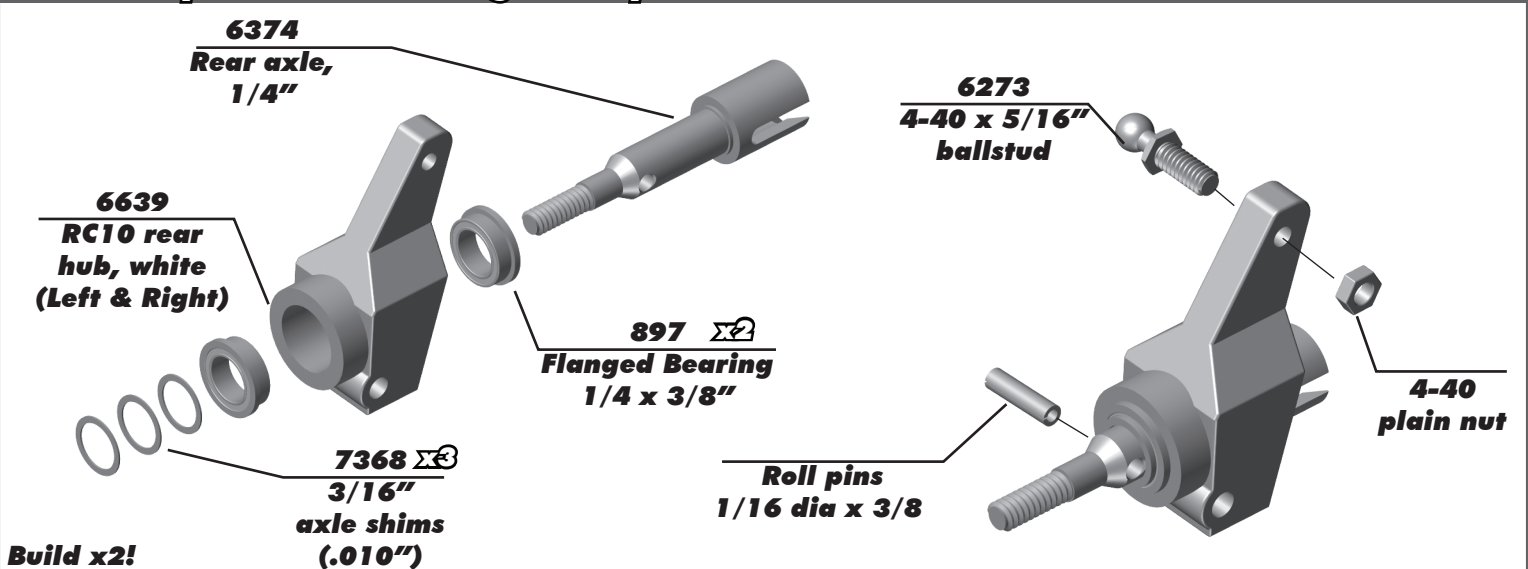
:: Rear Bulkhead Build - Bag D - Step 6



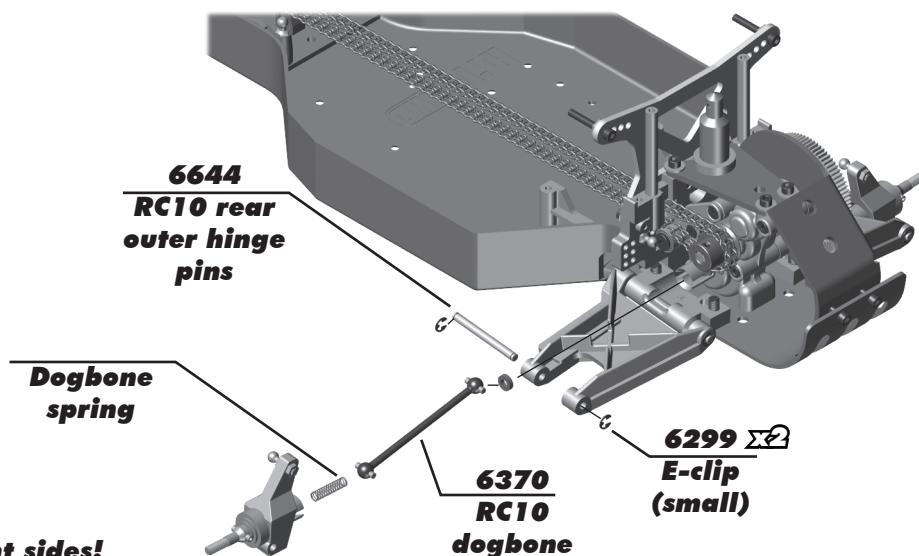
:: Rear Suspension Build - Bag E - Step 1



:: Rear Suspension Build - Bag E - Step 2

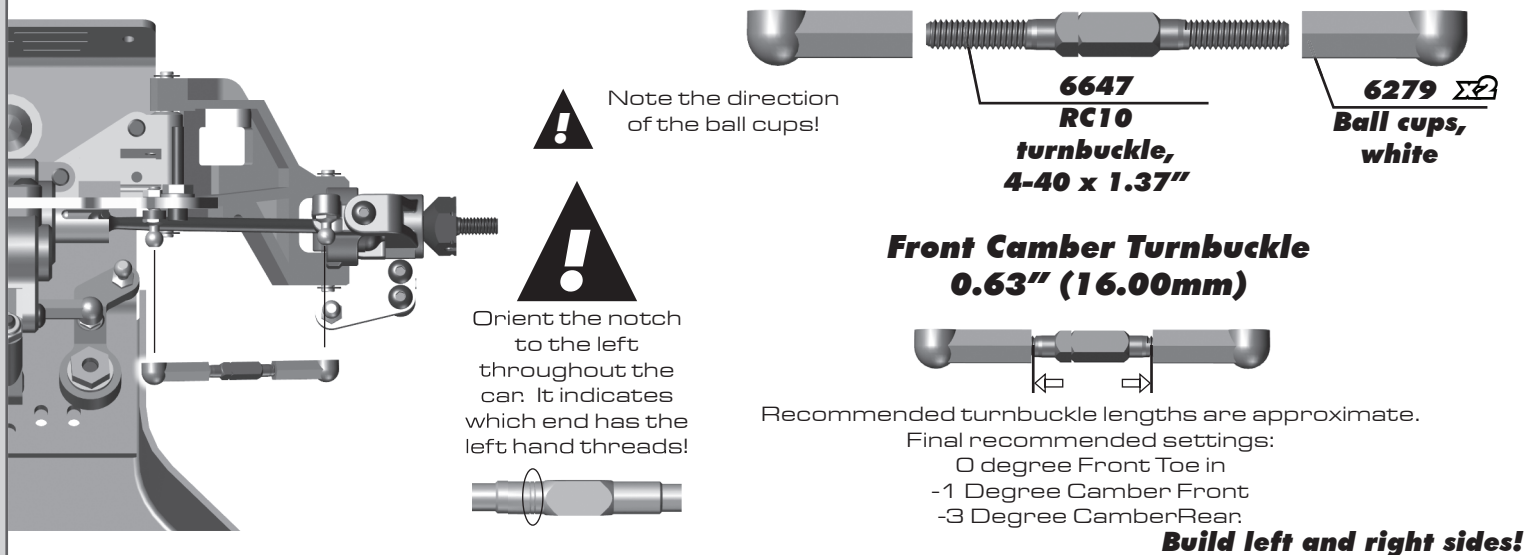


:: Rear Suspension Build - Bag E - Step 3

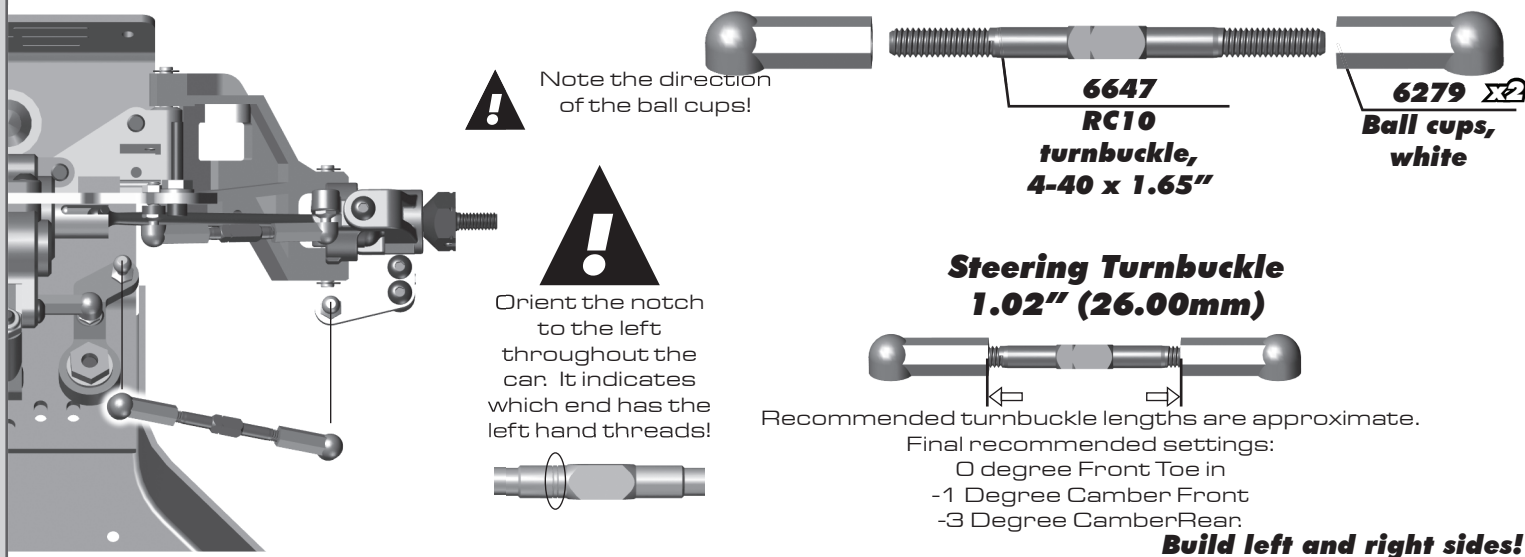


Build left and right sides!

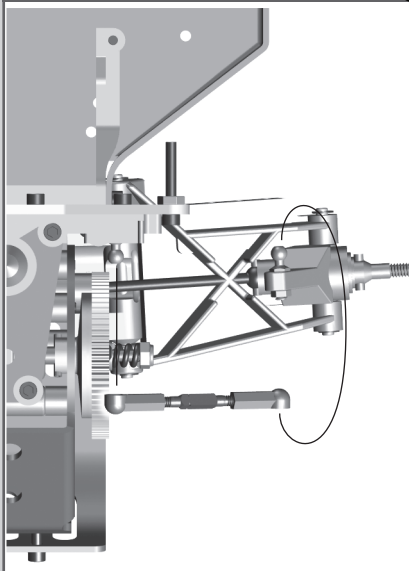
:: Turnbuckle Build - Bag F - Step 1



:: Turnbuckle Build - Bag F - Step 2



:: Turnbuckle Build - Bag F - Step 3



! Note the direction of the ball cups!

! Orient the notch to the left throughout the car. It indicates which end has the left hand threads!

6647 RC10 turnbuckle, 4-40 x 1.37"

6279 ^{Σ2} Ball cups, white

Rear Camber Turnbuckle 0.78" (20.00mm)

Recommended turnbuckle lengths are approximate.
Final recommended settings:
0 degree Front Toe in
-1 Degree Camber Front
-3 Degree Camber Rear

Build left and right sides!

:: Shocks Build - Bag G - Step 1

Remove spurs

Piston

Piston number here
Use #1 = front shocks
Use #1 = rear shocks

! **TIP:** Use marker to mark the piston numbers for easy identification!

6299 E-clip (small)

6418 Shock shaft, front (0.71)

6417 Shock shaft, rear (1.02)

Shock pistons (1, 2, 3)

6299 E-clip (small)

Build two front and two rear!

:: Shocks Build - Bag G - Step 2

5407 ^{Σ2} Red o-ring

Remove spurs

6440 RC10 shock rebuild kit

6440 Shock assembly tool

Front Shock
6437 FT Hard Anodized shock body, front (0.71)

Shock fluid 50wt #5435

SNAP!

Rear Shock
6435 FT Hard Anodized shock body, rear (1.32)

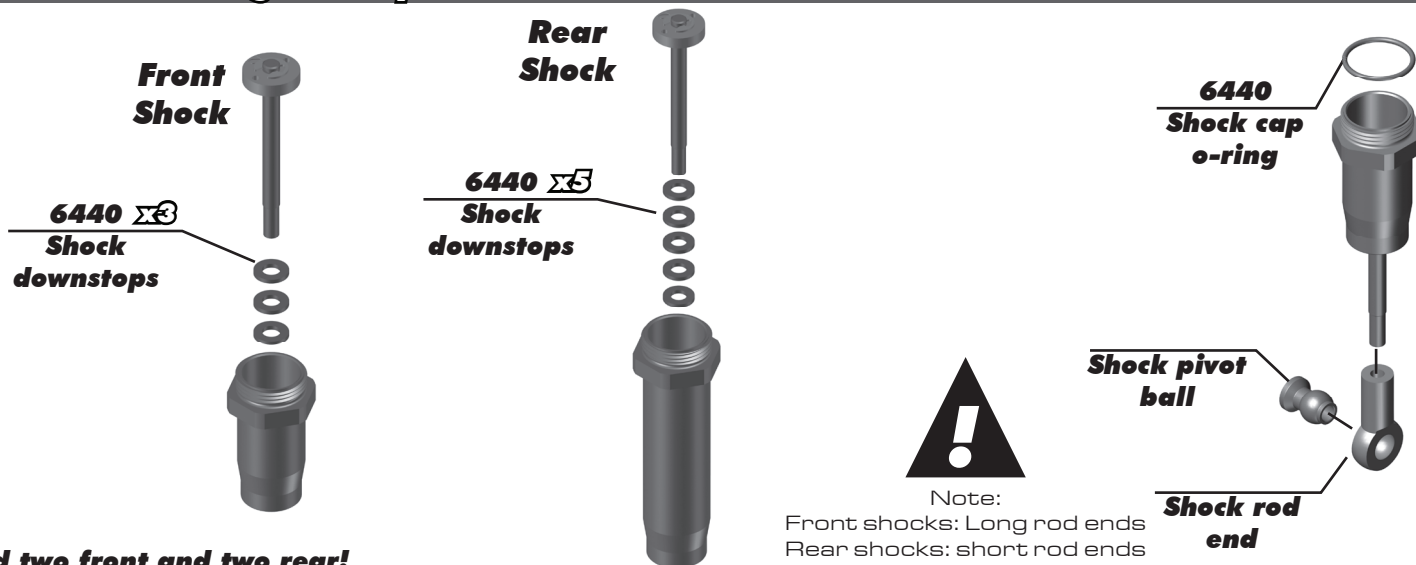
Shock fluid 35wt #5429

SNAP!

! Place on table and push down hard until clamp snaps into place

Front shock fluid: 50wt
Rear shock fluid: 30wt

:: Shocks Build - Bag G - Step 3

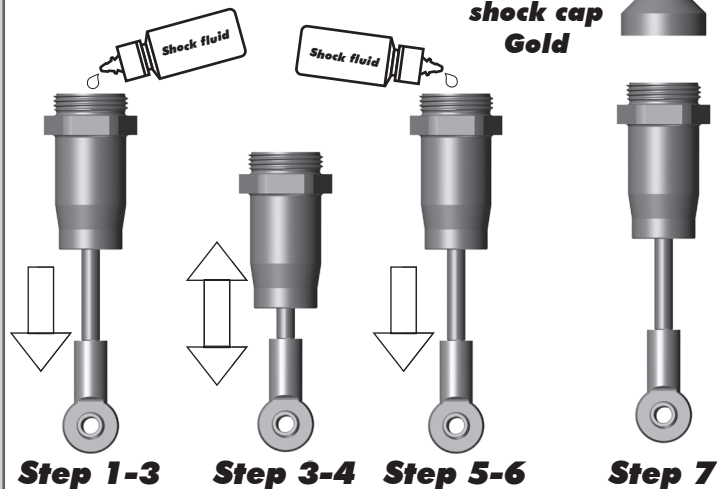


Build two front and two rear!

:: Shocks Build - Bag G - Step 4

Front shock fluid: 50wt
Rear shock fluid: 35wt

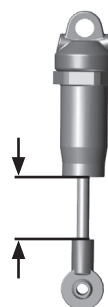
6420/6462 RC10 shock cap Gold



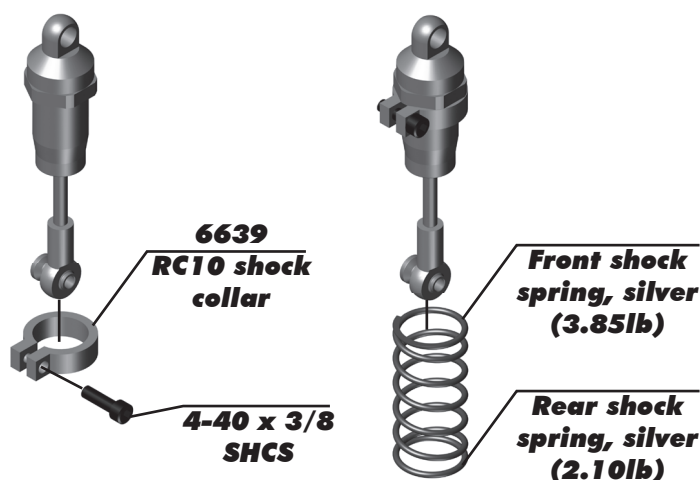
* Shock Bleeding Steps:

1. Pull shock shaft down.
2. Fill shock body 3/4 full with silicone fluid.
3. Slowly move the shock shaft up and down to remove air from under piston.
4. Wait for bubbles to come to surface.
5. Fill shock body to top with silicone fluid.
6. Place several drops of oil in the cap and on cap threads.
7. Install cap and tighten completely.
8. Slowly compress shaft all the way to the top. If there is pressure at the top of the stroke, there is too much oil. You must bleed it out.
9. Slowly pull shaft down.
10. Unscrew the cap 3/4 turn and tilt the shock at a slight angle.
11. Slowly compress the shaft to push out excess oil and air. You should see bubbles coming out from under the cap.
12. With the shaft compressed, tighten the cap and re-check for pressure at the top of the stroke. If there is still pressure, repeat steps 9 thru 11.

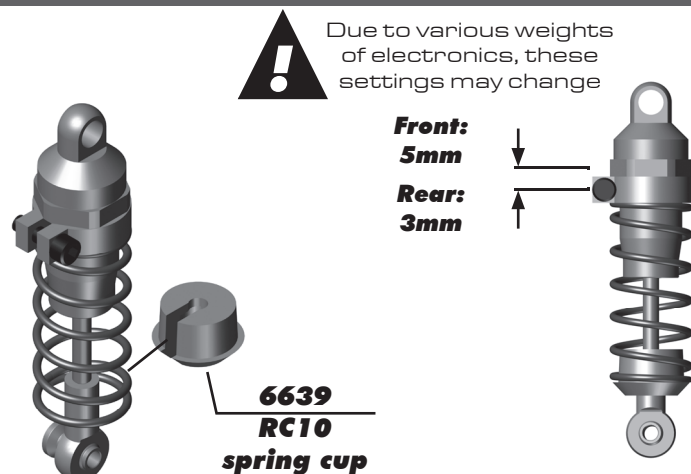
Stroke
Front: 18mm
Rear: 27mm



:: Shocks Build - Bag G - Step 5

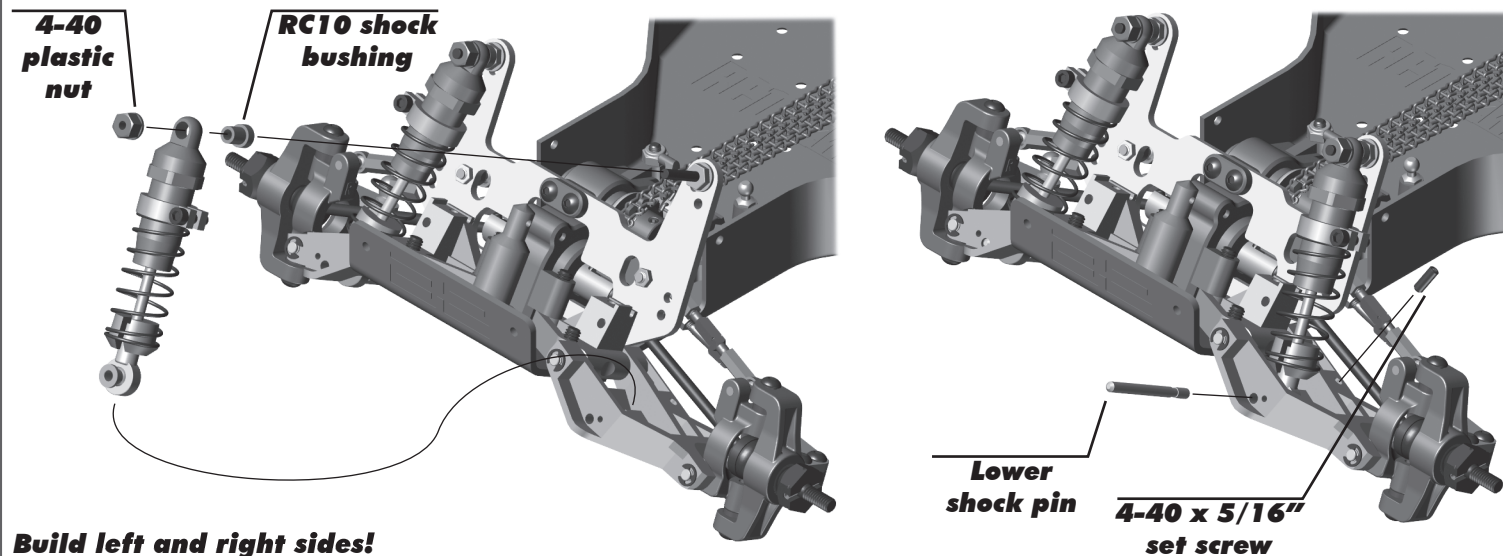


Build two front and two rear!

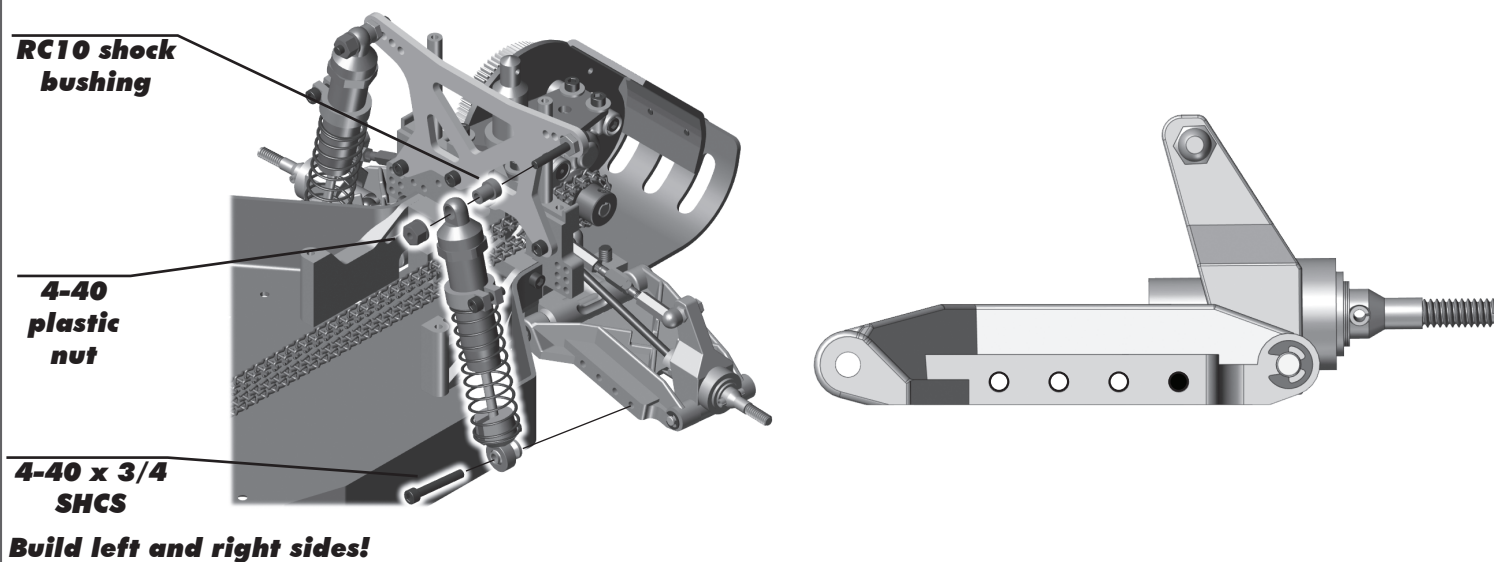


Due to various weights of electronics, these settings may change

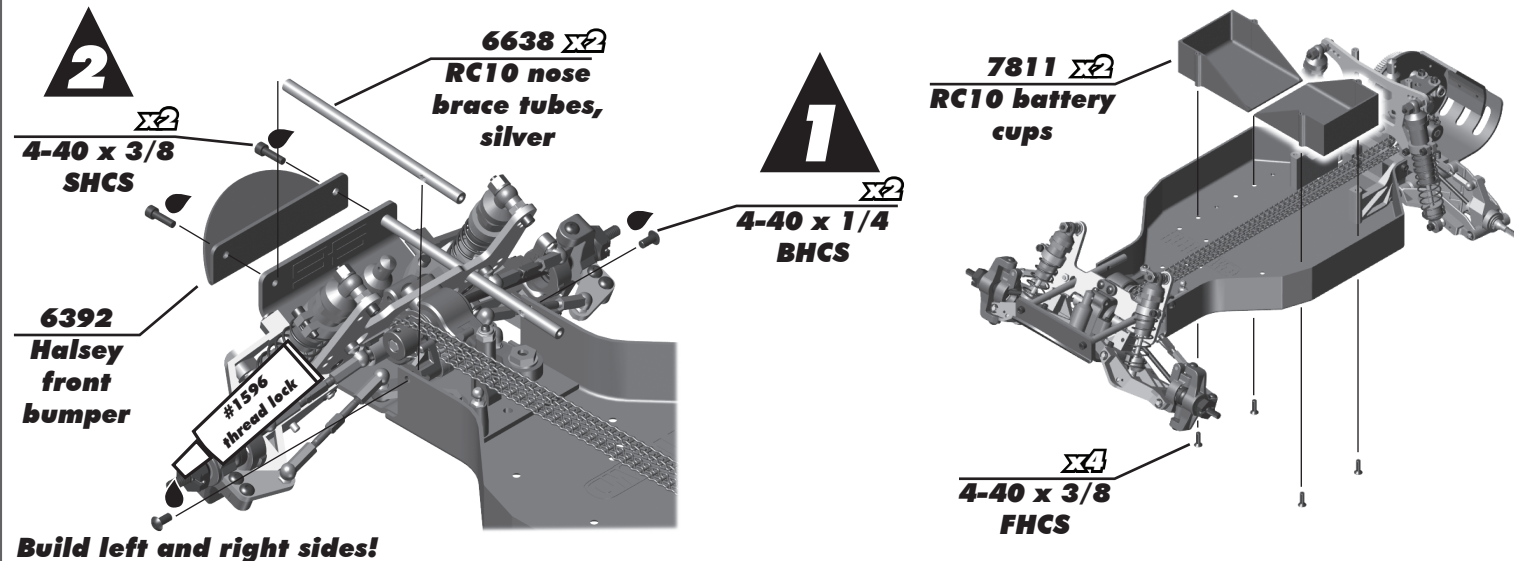
:: Shocks Build - Bag G - Step 6



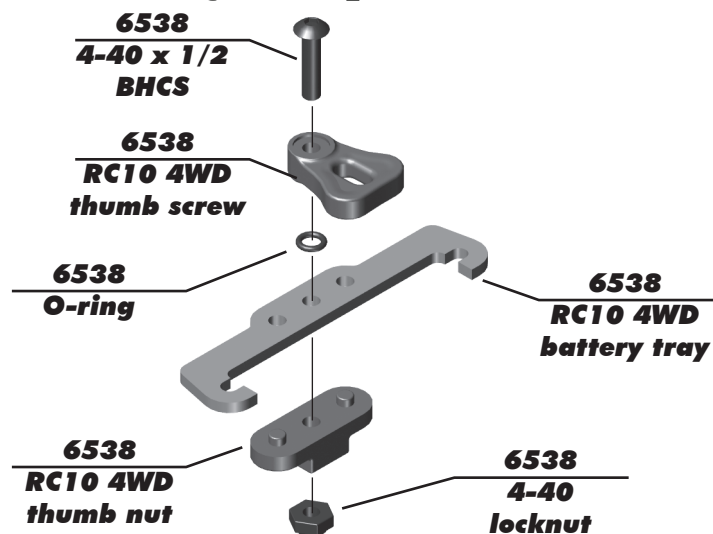
:: Shocks Build - Bag G - Step 7



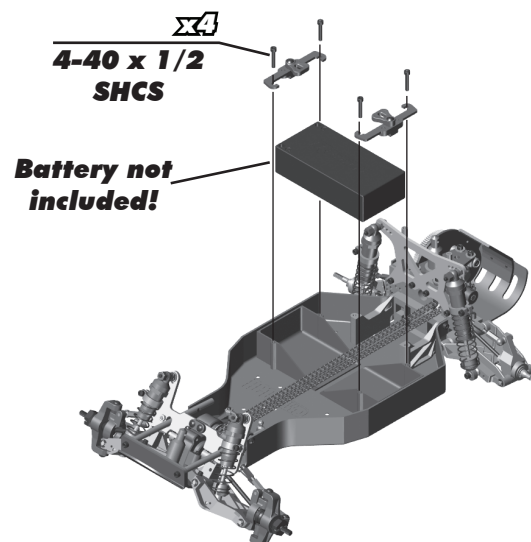
:: Chassis Build - Bag H - Step 1



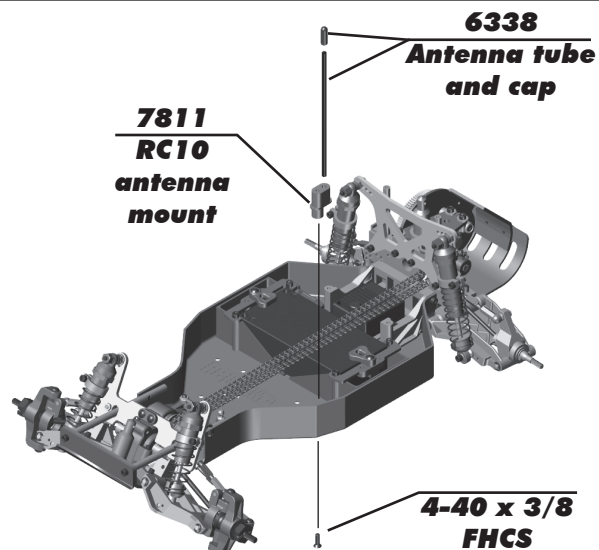
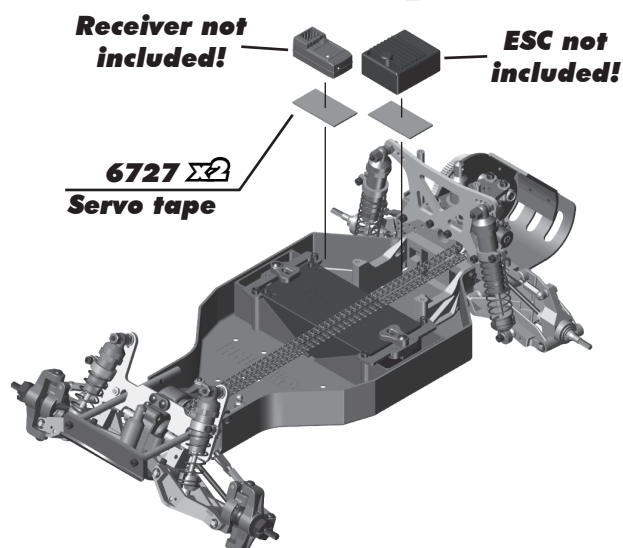
:: Chassis Build - Bag H - Step 2



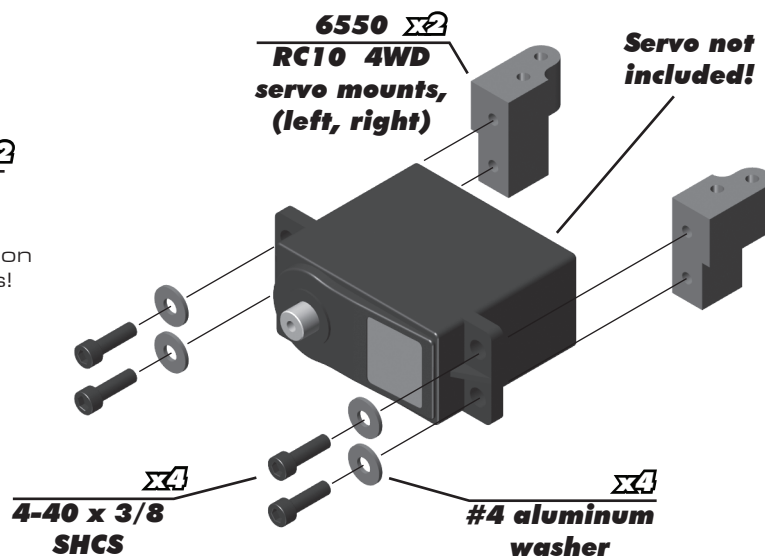
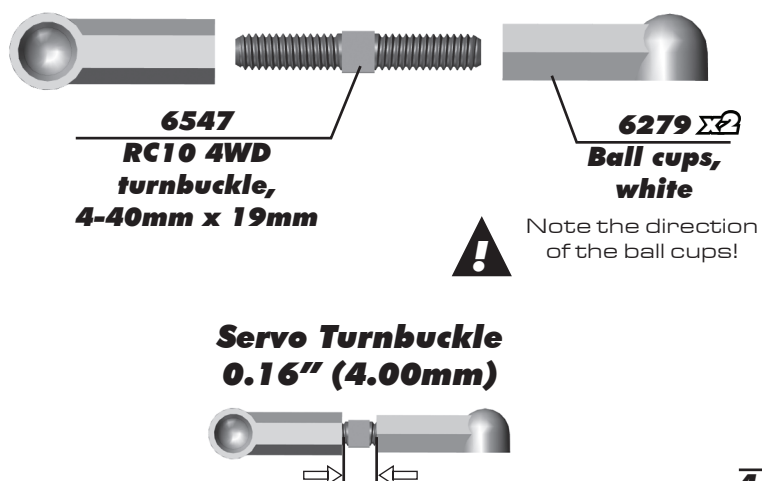
Build x2!



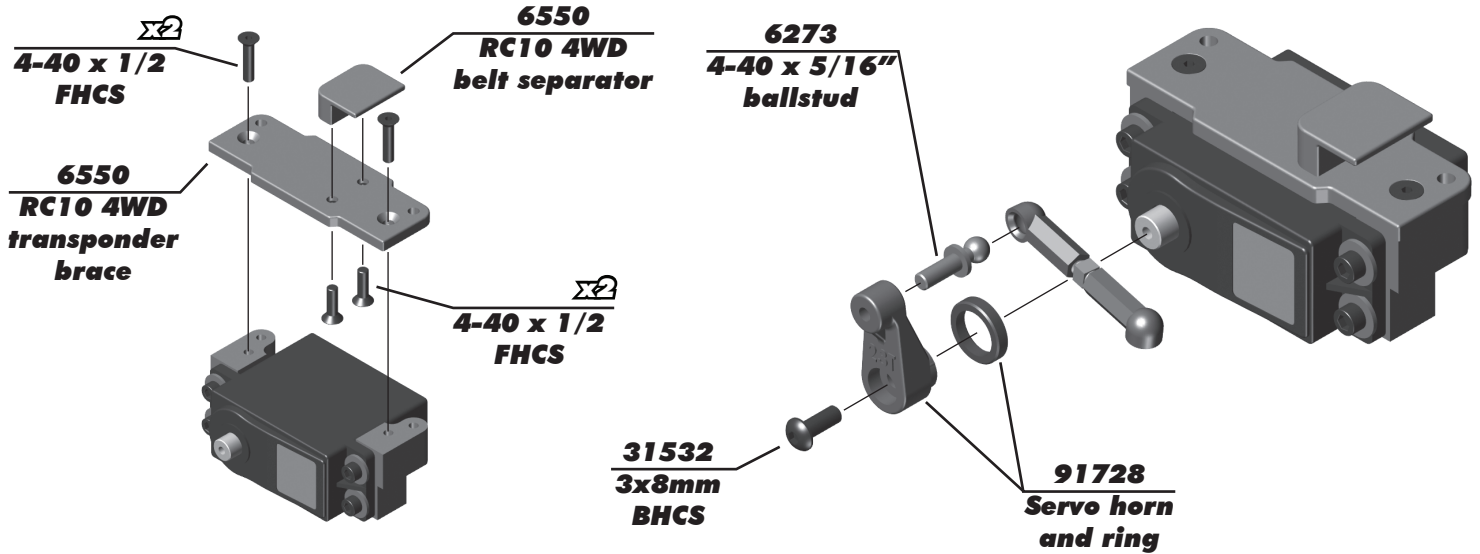
:: Chassis Build - Bag H - Step 3



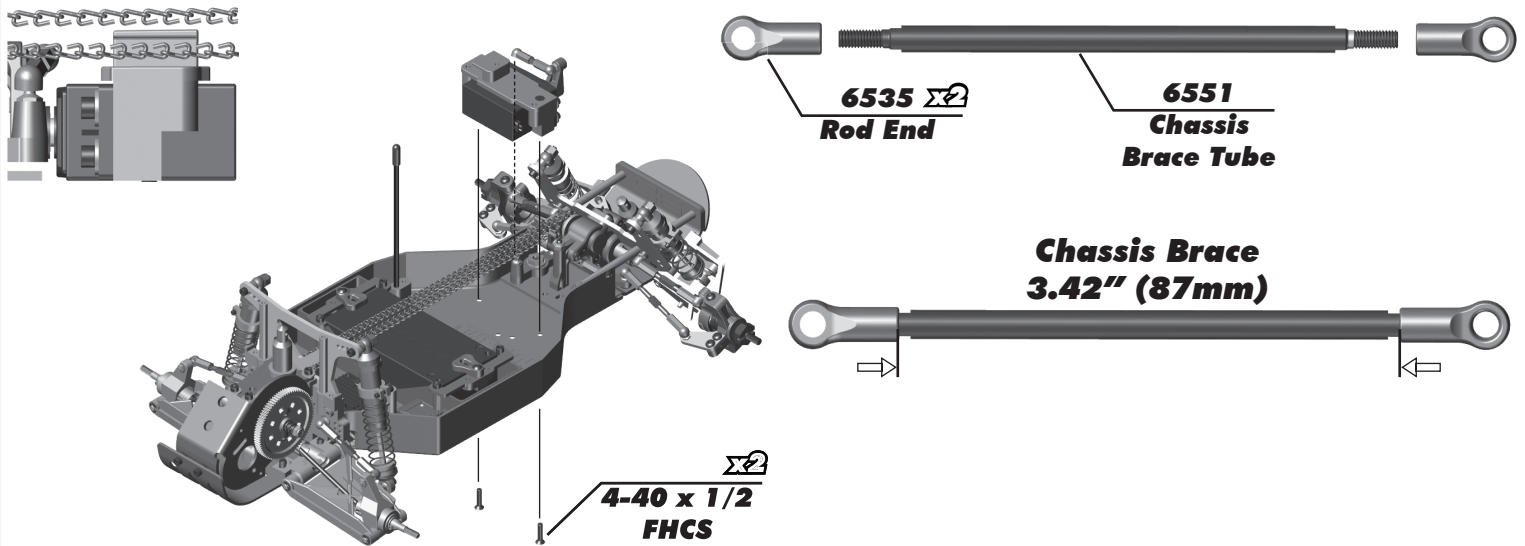
:: Servo / Chassis Stiffeners Build - Bag I - Step 1



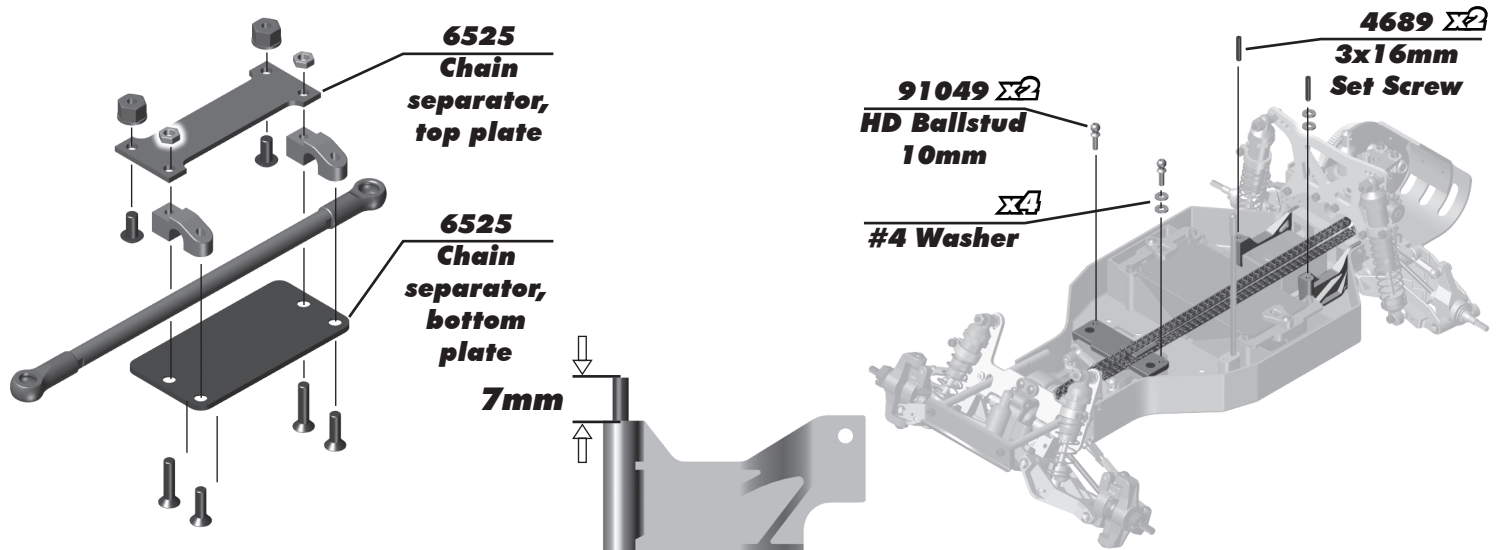
:: Servo / Chassis Stiffeners Build - Bag I - Step 2



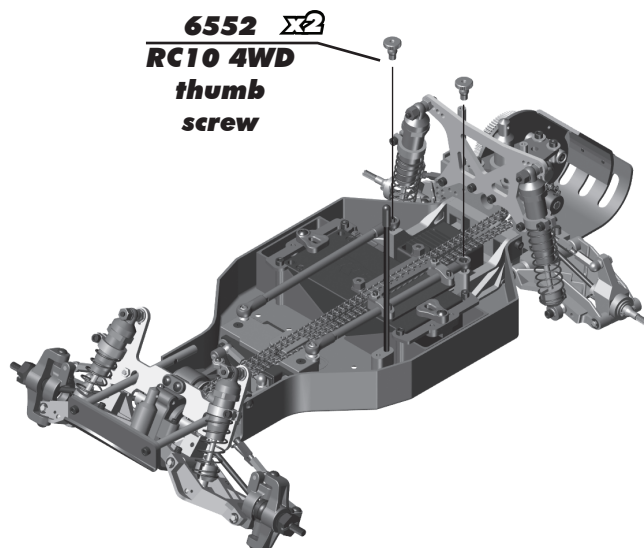
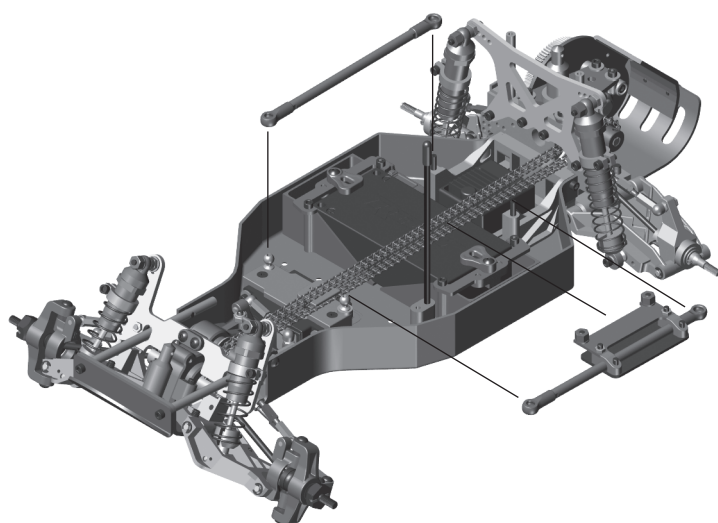
:: Servo / Chassis Stiffeners Build - Bag I / F - Step 3



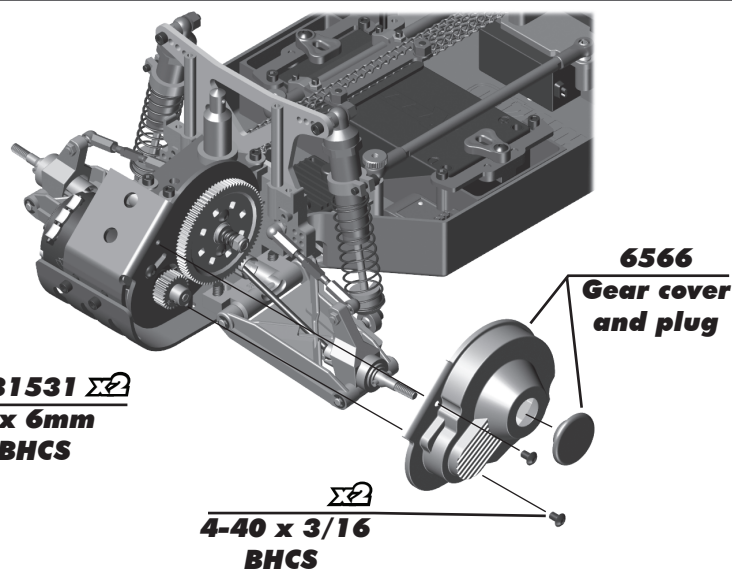
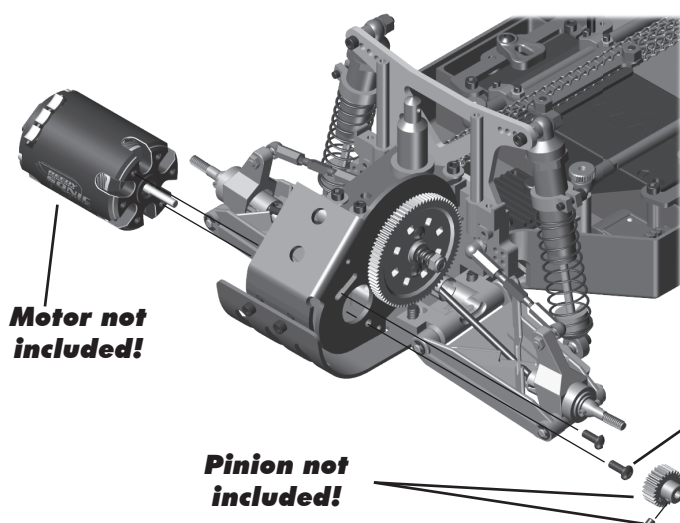
:: Servo / Chassis Stiffeners Build - Bag I - Step 4



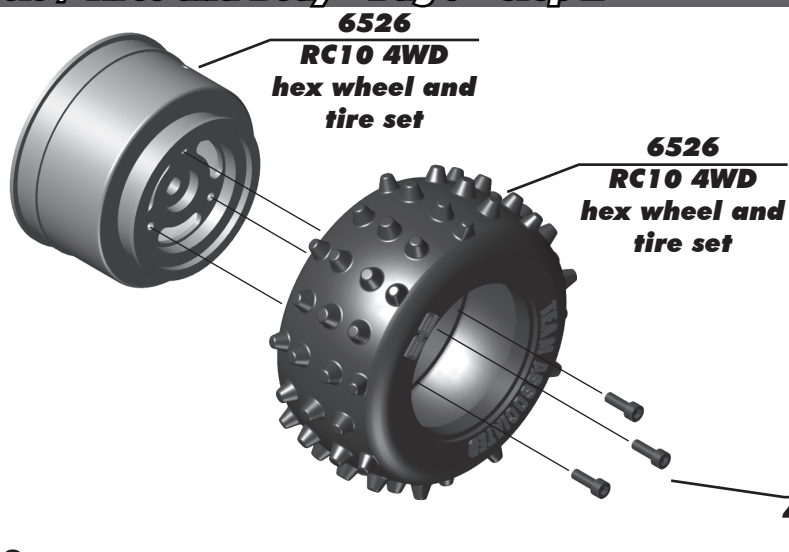
:: Servo / Chassis Stiffeners Build - Bag I - Step 5



:: Wheels / Tires and Body - Bag J - Step 1



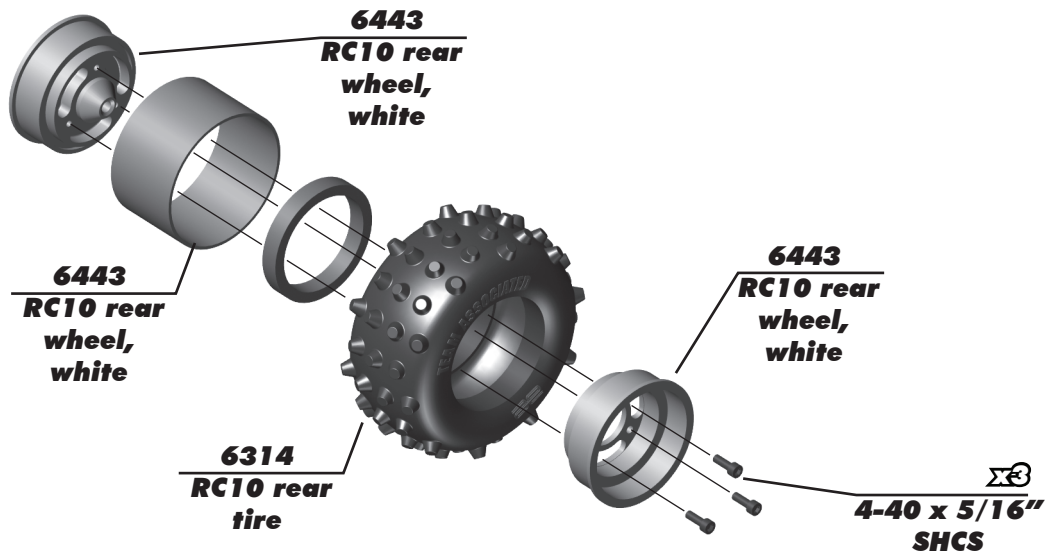
:: Wheels / Tires and Body - Bag J - Step 2



Clean the tire and wheel bead.
Carefully apply CA glue (tire adhesive)
to the tire bead on both sides.
Do one side at a time, allow it to dry
before gluing the other side!
CA glue not included!

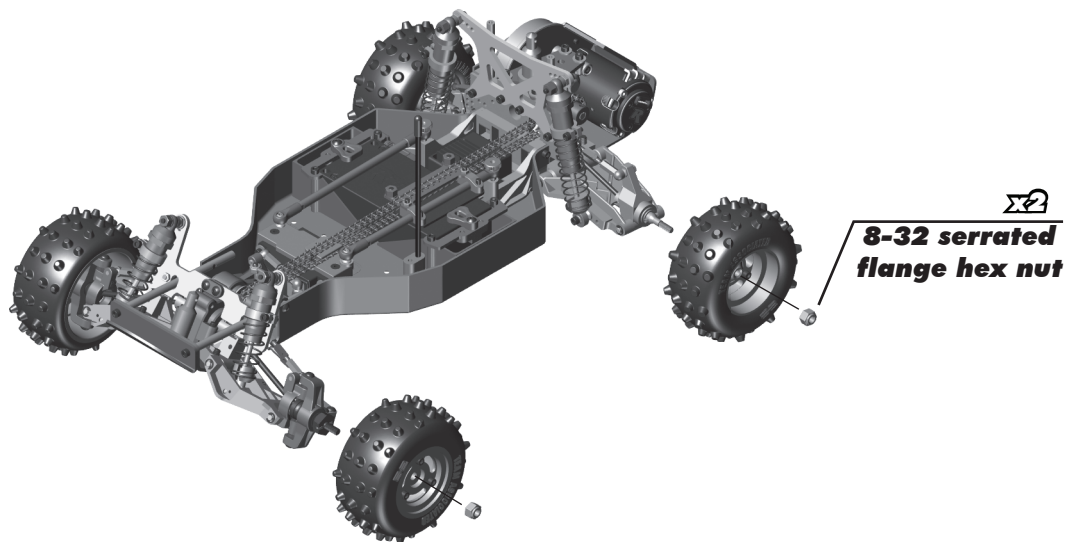


:: Wheels / Tires and Body - Bag J - Step 3



Build 2

:: Wheels / Tires and Body - Bag J - Step 4



:: Wheels / Tires and Body - Bag J - Step 5

Painting Tips:

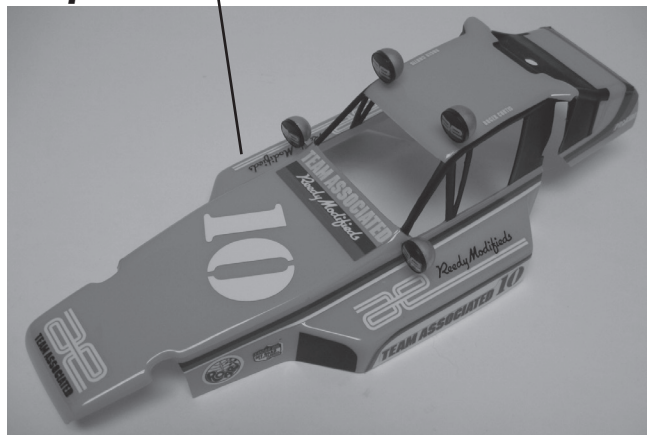
Your RC 10 Kit comes with a clear polycarbonate body and wing. You will need to prep the body and wing before you can paint them. Wash the inside thoroughly with warm water and liquid detergent. Dry the body and wing using a clean, soft, lint-free cloth. Use high quality masking tape to make masks for the windows and install them on the inside of the body (RC cars get painted from the inside). Using high quality masking tape, apply tape to the inside of the body to create a design. Spray (either rattle can or airbrush R/C specific paint) the paint to the inside of the body (preferably dark colors first, lighter colors last).

NOTE: use ONLY paint that is recommended for use with (polycarbonate) plastics. If you do not, you can destroy the plastic body and wing!!!!).

It is recommended to wear a mask while painting.

After the paint has dried, cut the body and wing along the trim lines. Make sure to drill or use a body reamer to make the holes for the body mounts, wing mounts, and antenna!

6159
RC10 Protec
Buggy body,
unpainted



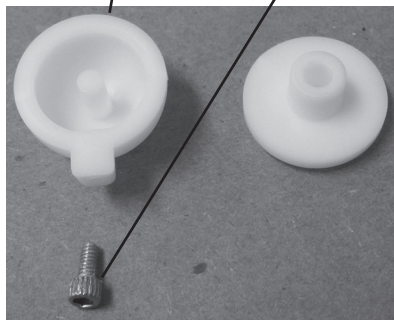
:: Wheels / Tires and Body - Bag J - Step 6

Light Buckets:

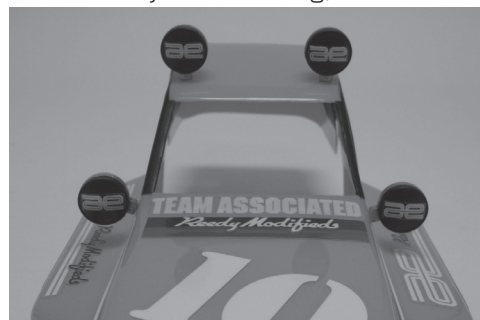
Press the light bucket halves together.
Install light buckets with 2-56 x 3/16 SHCS in areas shown.

6639
Light
buckets

2-56 x 3/16
SHCS



Mount the light buckets in any location of your choosing, or not at all.



:: Wheels / Tires and Body - Bag J - Step 7

Painting Tips:

Driver :

Your RC 10 Kit comes with a clear polycarbonate driver figure. You will need to prep the driver figure before you can paint it. Wash the inside and outside thoroughly with warm water and liquid detergent. Dry the driver figure using a clean, soft, lint-free cloth. The driver figure can be painted from the inside or the outside, depending on what type of finish you would like. If painted from the inside, the painted sections will appear glossy. If painted on the outside, the painted sections will appear flat or matte finished. Trim as shown and install inside the body using strapping tape. After painting, cut the body and wing along the trim lines.

NOTE: use ONLY paint that is recommended for use with (polycarbonate) plastics. If you don't, you can destroy the plastic body, driver figure, and wing!!!!.

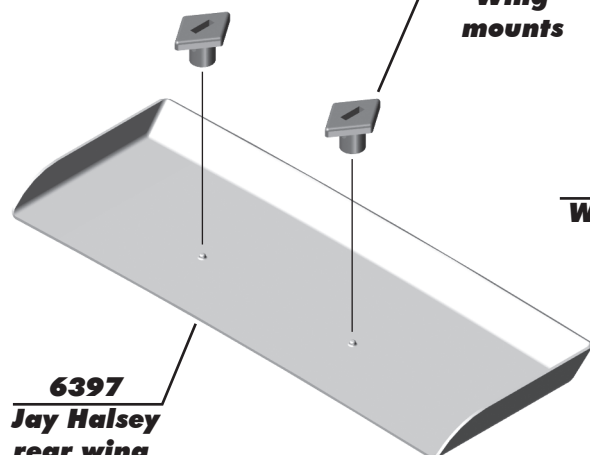
RC10 driver
figure, clear



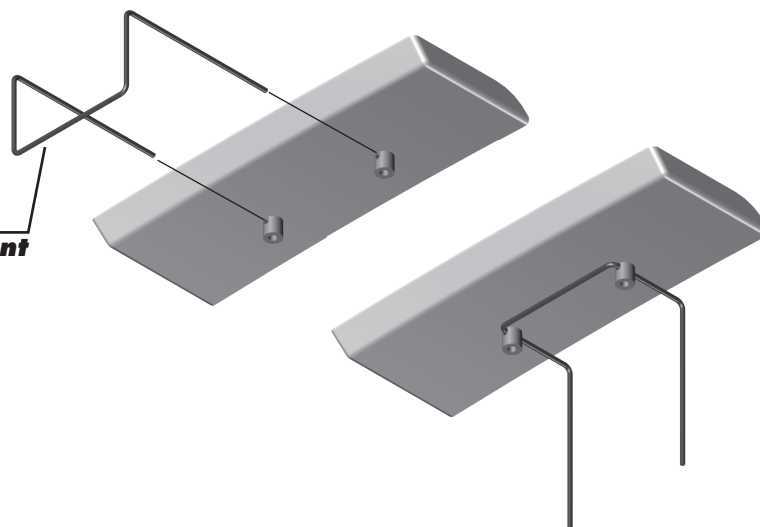
:: Wheels / Tires and Body - Bag J - Step 8

6639 **Σ2**
Wing
mounts

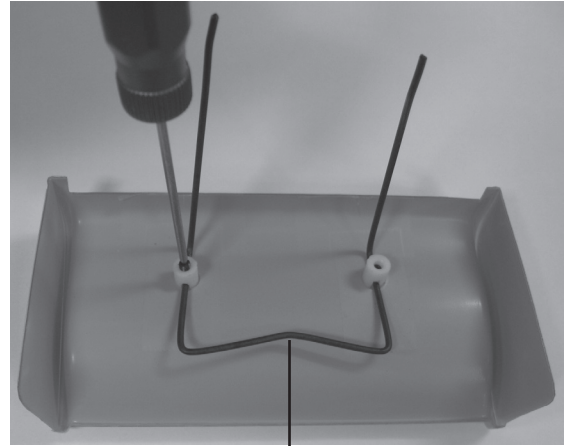
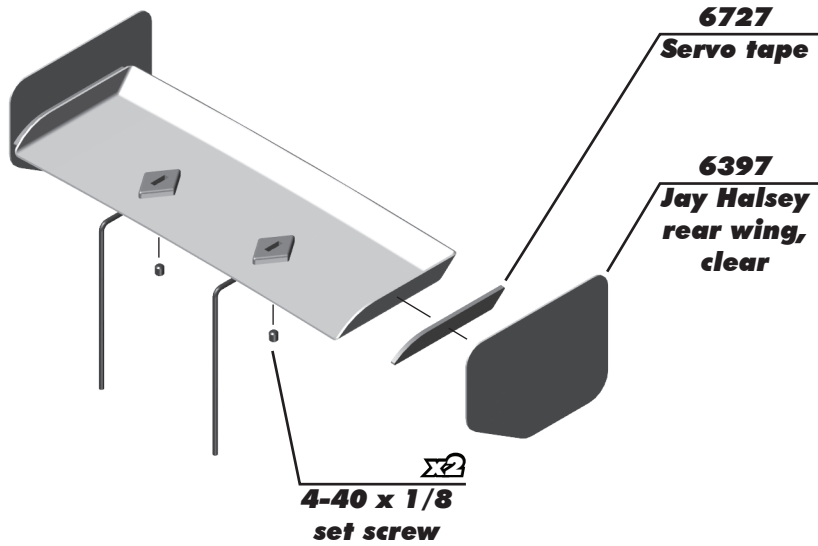
Wing mount
wire



6397
Jay Halsey
rear wing,
clear

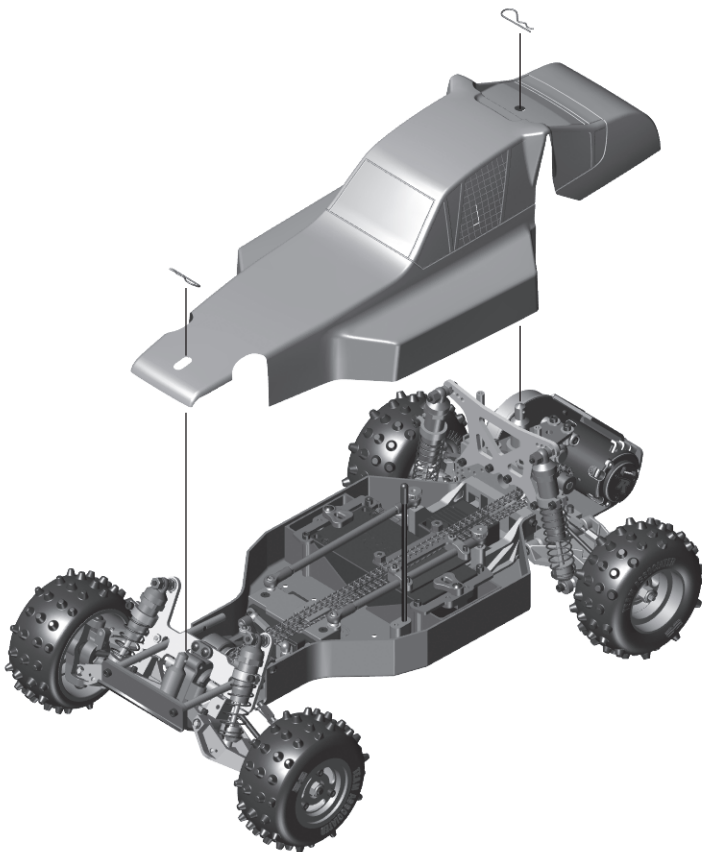


:: Wheels / Tires and Body - Bag J - Step 9

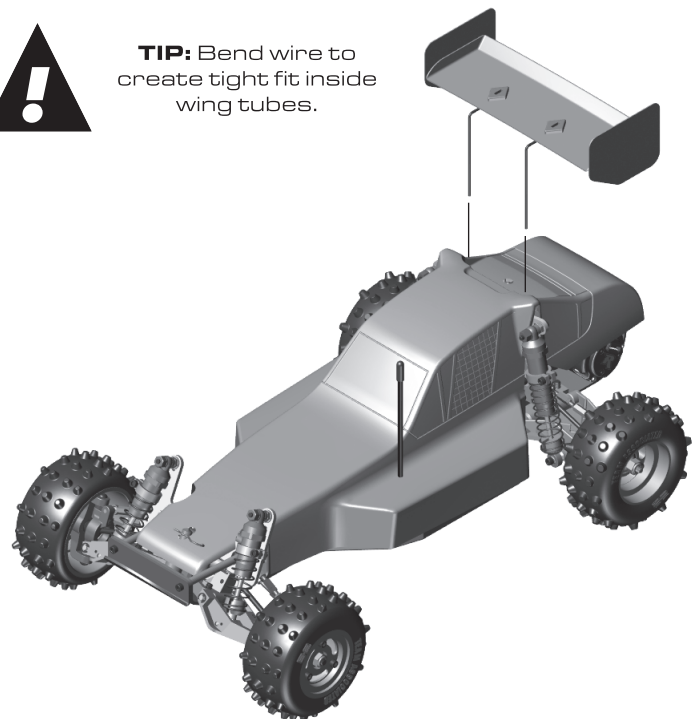


TIP: Bending the wire as shown can help ensure the wing buttons are parallel.

:: Wheels / Tires and Body - Bag J - Step 10



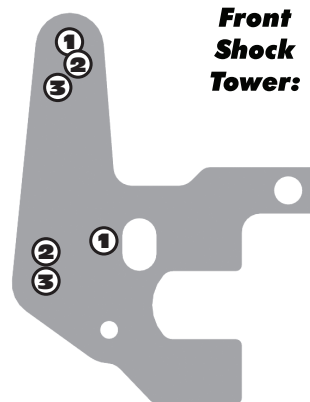
TIP: Bend wire to create tight fit inside wing tubes.



TEAM ASSOCIATED RC10 4WD SETUP SHEET

Driver: _____ Date: _____
Track: _____ Event: _____
Conditions: Indoor ☐ Outdoor ☐ Temp. _____ Rev.1

Shock Towers



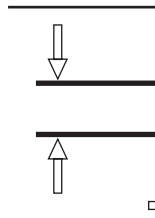
Front Shock Tower:



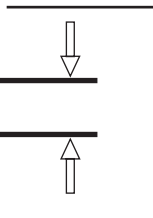
Rear Shock Tower:

Ride Height / Wheelbase

Front Ride Height:



Rear Ride Height:



Wheelbase:
Short
Long



Front Suspension

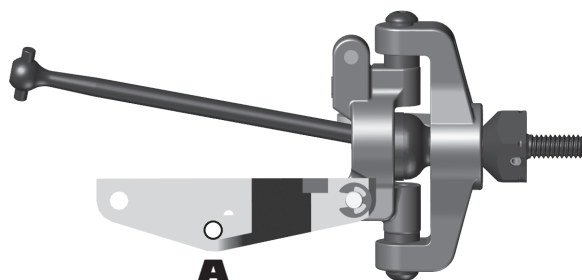
Camber: _____

Toe: _____

Caster:

15° ☐

30° ☐



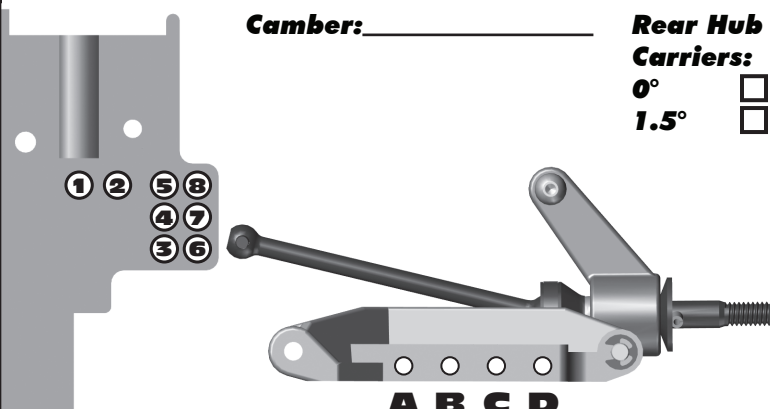
Rear Suspension

Camber: _____

Rear Hub Carriers:

0° ☐

1.5° ☐



Front Shocks

Spring: _____

Shock Oil: _____

Piston: _____

Limiter: _____

Rear Shocks

Spring: _____

Shock Oil: _____

Piston: _____

Limiter: _____

Motor / Battery

Motor & Wind: _____

Pinion: _____ **Spur Gear:** _____

Battery: _____

Notes: _____

Radio / ESC Settings

Radio: _____

Throttle / Brake e.p.a: _____

Throttle / Brake expo: _____

Servo: _____ **Steering Expo:** _____

ESC: _____

ESC Settings: _____

Weight

Battery Placement: _____

Ballast Weight: _____

Notes: _____

Other

Body Type: _____

Wing Type: _____

Front Tires

Tire: _____

Compound: _____

Insert: _____ **Wheel:** _____

Rear Tires

Tire: _____

Compound: _____

Insert: _____ **Wheel:** _____

Race and Vehicle Comments

Qualify: _____ **Main:** _____ **Finish:** _____ **TQ:** _____

Comments: _____

Track Info

Surface:

Dirt ☐
Carpet ☐
Astro ☐
Multi ☐

Traction:

Low ☐
Med ☐
High ☐

Conditions:

Grooved ☐
Dusty ☐
Smooth ☐
Bumpy ☐
Hard Pack ☐
Loamy ☐

Moisture:

Wet ☐
Damp ☐
Dry ☐



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